

DIGITAL PhotoPro®

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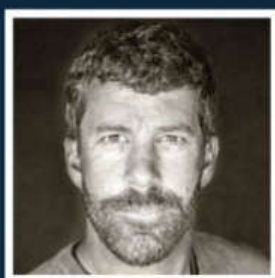


¹Among digital cameras with a 35mm full-frame image sensor at the time of June 2015 press release, based on Sony research.

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Gabe Rogel MADE *the* SWITCH

Gabe Rogel



ADVENTURE SPORTS
PHOTOGRAPHER
GABE ROGEL
LOVES HIS SONY
MIRRORLESS
CAMERAS BECAUSE
THEY'RE LIGHT,
THEY'RE FAST,
AND THEY SHOOT
BEAUTIFUL VIDEO.

Adventure sports photographer Gabe Rogel grew up loving mountain climbing and snow skiing. While studying photography in college, he sold a few photos and that led to a realization: "This is what I want to do." He did it, too. And now he's doing it with Sony mirrorless cameras.

Rogel loves the space savings of the a7, but size wasn't what first inspired him to abandon a bulky DSLR for a compact mirrorless camera.

"The biggest thing is that I was getting into video pretty heavily," he says, "and I knew Sony was doing some really cool stuff with video. And from the little bit of research I had done, they had some video features on their DSLRs that Canon didn't have, and still doesn't have. I think Sony is on to something, and, of course, when the a7 came out, it was, like, oh, this is awesome. They're really doing some cool stuff. It just kind of blew everybody out of the water. Me included, of course."

The Sony a7S is Rogel's camera of choice for multimedia assignments that involve both stills and video. He took it on assignment to Nepal last fall, convincing the client it was the ideal camera for the production.

"The a7S is super-video-specific," he explains, "and

it's great in low light. I had a big commercial video project in the Himalayas and I had a gear budget, and when they asked what camera I would like to bring, I told them the a7S. It was just coming out and everyone was geeking out and drooling over it, and they were all excited. They wanted to check it out and play with it, too. I bought two of those for that trip and a couple lenses, and it was great up to altitude and in the cold. It was cool to use a little teeny camera that sits in the palm of your hand for a big client."

One of Rogel's favorite features about the Sony a7 series is also one of the simplest: the articulating LCD screen.

"For video," he says, "having a swivel screen is huge. Get down low, get up high... My \$6,000 1D X doesn't do that. But it's a feature that I really love. After the release of the a7R II, and discovering its still photo capabilities, I can't wait to see what the a7S II will do for video!"

"The other big one is focus peaking. I've had a Zacuto viewfinder and a few different viewfinder things, and I just don't want to mess around with those things in the field. It takes more time, athletes are waiting for me, I just want to be quick and light and be able to just run and gun some stuff and with focus peaking. I really like keeping things simple."

FOR MORE ABOUT GABE ROGEL, VISIT SONY.COM/ALPHA

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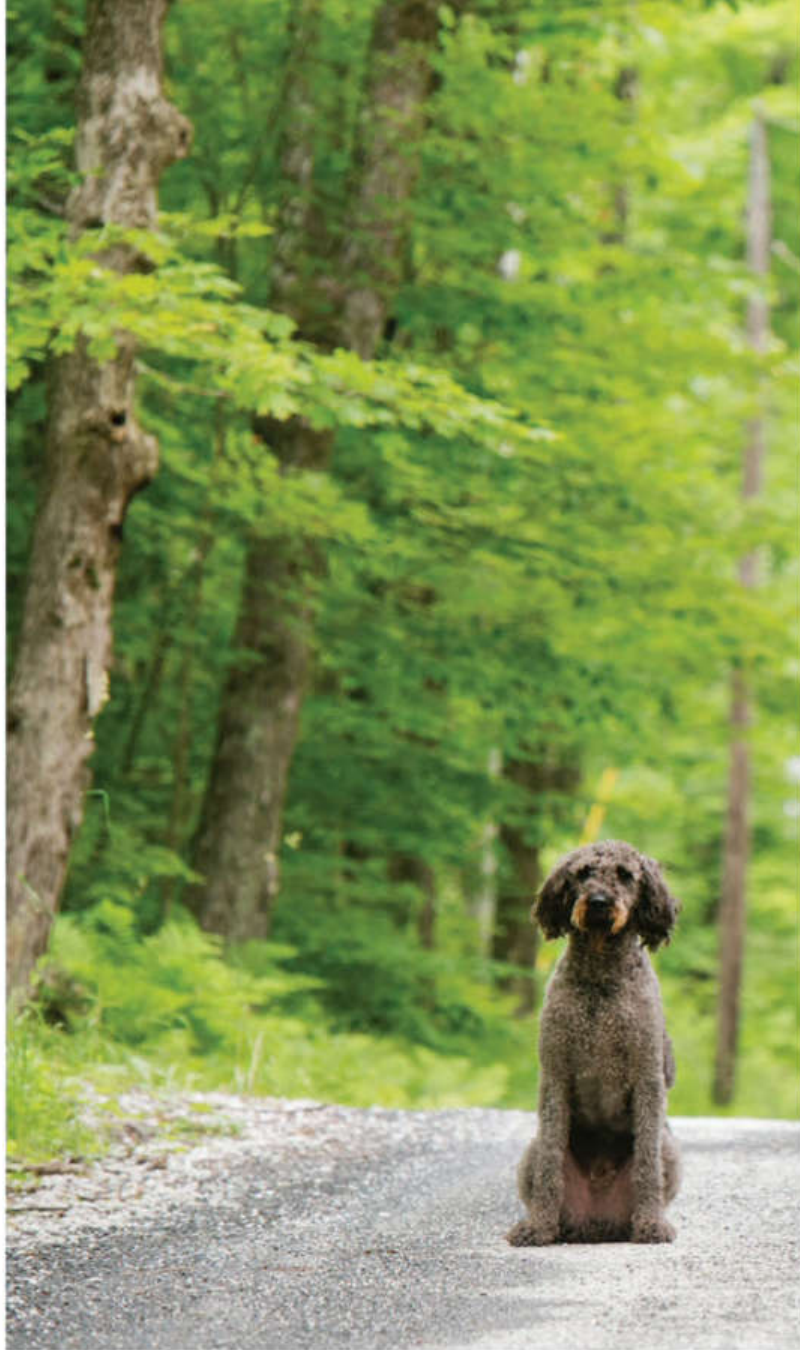


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Photographer Jordan Matter found inspiration in his young son's play, and launched a new career

By David Schloss

Photography By Jordan Matter



Jordan Matter

Editor's Note

The other day, as I often do, I was killing time by flipping through images on Instagram. I've been on Instagram for a long time, and I follow a huge array of friends and photographers (and friends who are photographers).

When I first started participating in the Instagram community, image quality and photographic technique weren't paramount. There were a lot of photos of people's kids, a lot of pictures of barbecues and graduations, and a decent variety of photographic talent.

Over time, though, the images started getting better and better. Even my friends who are *not* photographers started to post more compelling, better-looking and better-composed images. Pictures of children are framed against the

setting sun. Barbecue shots became tightly cropped food photography, and graduations turned into photojournalistic looks into cap and gown ceremonies. It's as if the influx of professional photography on Instagram helped to raise the bar for everyone on the platform by shaping expectations and providing good examples of what really great images look like. Almost by osmosis, the quality of images on Instagram seemed to improve en masse.

This isn't entirely surprising. As a student, I pored over piles of photography and design books. Going to museums and exhibitions was part of the process of learning to be more creative. Instagram is an ever-changing, ever-evolving photography classroom.

As a technology writer and an educator, I've

long tried to help people improve their images; as an editor, that mission continues thanks to the incredibly talented photographers I get to work with. One of the things that has struck me during my career is the direct connection between a positive attitude and flexibility and the trajectory of one's career. The photographers we feature in this issue have excelled by being open and willing to try new things, push their boundaries and to say "yes" more often than they say "no."

It would be tempting to look at each of these photographers and decide that they happened to be in the right place at the right time, but that's doing them a bit of a disservice. Many people are in the right place at the right time, but they don't know it. The people who end up succeeding are often those who not only realized the opportunity



in front of them, but did whatever it took to take advantage of that opportunity.

We take a long look at Instagram thanks to Dan Rubin, one of the original beta-testers of the app, who used his early adoption of the social media to help reframe a design career and develop it into an impressive photographic career. His unique perspective on social media is helpful for photographers looking to use apps as a way to land clients and build portfolios.

We also look at Matt Armendariz, whose playful, creative and, quite frankly, delicious-looking food photography has been featured in numerous magazines and on television. Armendariz, who's as playful and creative as his work, didn't expect to become one of the leading food photographers, but he followed

opportunity and made a career out of elevating the way we look at food and gathering to eat it.

A similar tale is told by Jordan Matter, a photographer who found worldwide success capturing images of dancers in everyday situations. A personal project at its inception, Matter pushed and pushed to get it produced as a book. When his images ended up on a popular Internet news site, he seized the moment, got in front of publishers and sort of fibbed his way into a book deal. That book has led to exhibitions, talks and more books.

Turning to the world of photographic gear, we look at how new technologies—namely Apple's iPad Pro and other portable computers—are looking to reshape the computing landscape and what we can do to get in on the ground

floor. While today's standard computing tool for photographic work is a high-end desktop, tomorrow it will be a laptop and then soon it will be a shiny tablet (and maybe a stylus).

Good photographers are those who evolve. That's what I've seen at seminars and workshops, and that's what I see now on Instagram. Photography is a creative process, and creativity is always evolving. When a new opportunity arises, the creative photographer is ready and willing to seize it, while others watch it go by.

The photographers and technologies in this issue are all great examples of what happens when a problem creates a solution, and that solution creates an amazing and evolving career.

—David Schloss, Editor, @davidjschloss
editors@digitalphotopro.com

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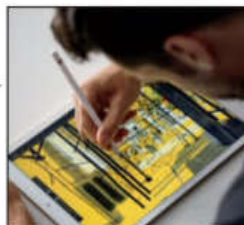
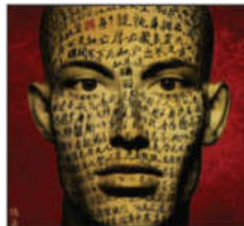
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ON THE COVER: Norwegian freshman Ida Dillingoen of the University of Denver, 2009 DU Invitational Ski Competition, Winter Park Resort, CO. Dillingoen would go on to win the 2011 NCAA Giant Slalom national championship. ©Brett Wilhelm

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Alejandro Merizalde

First Place | Alejandro Merizalde | “San Giacomo di Rialto”

Canaleto was known for his depictions of Venice, Italy. He covered every angle of the city in his canvases, [including] the church of San Giacomo di Rialto and the Rialto Market. My photograph, done in the same spot, but at a slightly lower vantage point, shows what the area currently looks like. It was taken last year.

Digital Photo Pro features the winners of Duggal Visual Solutions' Recollection – Reconstructing the Past photo contest. See the images that inspired these photographers and learn about upcoming photo contests at duggal.com.

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Image shot with the Olympus OM-D E-M1 and an M.Zuiko 75mm f1.8 lens by Olympus Trailblazer Tracie Maglosky.



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Ivana Larrosa

Runner-Up | Ivana Larrosa | "The Forge of Enric"

A photographic interpretation of the Velázquez painting "La Fragua de Vulcano" ("The Forge of Vulcan") from 1630. Apollo, in this case, Ramon Marti (1917-2011), visits the forge of Vulcan where his family works preserving their family's trade from their great-grandfather's time. Three generations in the same studio: Ramon Marti, 94 years old, his son, Valenti, 56 years old, his grandchildren Enric and Marc, 20 and 24 years old, and their uncle Jaume and a coworker Jordi. This work is a reflection on the passage of time and memory, and pays homage to the passing on of traditional knowledge and the uncertainty of its future.



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James Lloyd

Runner-Up | James Lloyd | “Old Place, New People”

In 1869, the American journalist and photographer William J. Stillman captured a series of images in Athens, [including] “View of the Acropolis from the East.” The focus of both the old and new photographs is the Parthenon, the ancient Temple of Athena that was the center of the Classical Athenian city. While the view has not changed much in 146 years, there are some subtle differences. Whereas the Frankish Tower was destroyed (it didn’t conform to the Classical ideal that the Acropolis otherwise exuded), the Parthenon is now shrouded in scaffolding as part of a meticulous effort to maintain and restore its Classical image. Reflecting upon Greece’s past and present, this photograph asks questions about the future of such an iconic site. The modern age has welcomed waves of tourists who now adorn the once empty slopes. While, in 1869, Stillman could photograph an empty site and wander freely around it, that is no longer possible. What is the cost of such globalization; what effect do New People have on such an Old Place?



Kira Morris

Runner-Up | Kira Morris “Portrait of an Antarctic Winterover”

While this may not be an exact replication of the most famous Antarctic portrait ever taken (that of early Irish explorer Thomas Crean), to those of us wintering on this harsh, unforgiving continent, it serves as a connection to Antarctica’s history and the first explorers who made our current adventure possible. This portrait is one of over 80 in a series I started during my 8-month winter deployment to McMurdo Station, Antarctica. While the project started out as a way to distract myself from the isolation, darkness and lack of fresh vegetables, it quickly turned into something much more meaningful to my fellow winterovers and me. To us, Crean’s 100-year-old photo represents how it feels to be human in one of the most inhospitable places on earth. While modern Antarctic exploration has come a long way, it hasn’t changed the unwelcoming nature of this landscape and the experience of journeying to the end of the earth. That’s why it wasn’t as important to me to get the details exactly right. I wanted to re-create the feelings and curiosity evoked by the man in the photo. That’s why this photo of our station doctor is just as accurate of a re-creation as another in my series of a girl who came down to wash dishes or the mechanic who sings in a makeshift band. It’s about our shared story.

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Suzanne Fiore

Runner-Up | Suzanne Fiore | “Friends Again”

“Friends Again” is a re-created photo of my Grandmother and her friends. The photo was originally captured by my Grandfather. The reconstructed photograph is from a larger project that I am currently working on titled “Life Relived,” where I have been filling in the missing pieces of my family photo album. I was inspired by this photo because of how the moment that was captured expressed the vibrancy and personality of each woman. I found myself wishing that I knew my Grandmother’s friends. As I reconstructed the scene, I realized that I do know these women, because I have attracted friends in my own life with a similar vibrancy and, each woman, with her own distinct personality. These women and I have become friends again.



Sara Sadler

Runner-Up | Sara Sadler “Dino-girl with a pearl earring”

A Plasticine model dinosaur photographed in the same pose as Vermeer’s famous painting.



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<< Phase One Industrial Aerial Cameras

Medium-format digital heavyweight **Phase One's** Industrial division has introduced the **iXU-R** series of small high-resolution aerial cameras suitable for UAV ("drone") integration. Available in 80 MP, 60 MP and 160 and Achromatic versions with interchangeable 40mm, 50mm and 70mm Phase One Rodenstock leaf-shutter lenses (top shutter speed of 1/1600), the units measure just 5.1x4.5x5.4 inches (length is 7.5 to 7.8 inches with lens) and weigh 3.2 to 3.7 pounds, depending on lens. Each unit features full-sized, medium-format CCD sensors (approximately 53.7x40.4mm), USB 3.0 connectivity, direct communication with GPS/IMU systems, and Forward Motion Compensation. Images are stored on CF or SSD media. Estimated Street Price: See dealer. **Contact:** Phase One Industrial, industrial.phaseone.com.

Tamron 35mm And 45mm Di VC USD Lenses >>

Tamron has made another serious step into the high-end professional landscape and portrait market with the introduction of the **SP 35mm f/1.8 Di VC USD** and **SP 45mm f/1.8 Di VC USD** lenses. The company combined enhanced optical image quality and built-in image stabilization in this brace of lenses. Both the 35mm and 45mm lenses have incredibly close-focusing ability, making them great all-around lenses for photographers looking to go from landscapes and portraits one moment to macros or close-up detail work the next. Image stabilization isn't common in prime lenses, giving the new Tamron lenses added versatility over other primes on the market. The optical design promises less vignetting at the edges, greater sharpness and improved image quality over other Tamron lenses thanks to the use of molded glass aspherical elements, Low Dispersion (LD) elements and Extra Low Dispersion (XLD) elements, and a front element coating that sheds water and avoids fingerprint smudges. The comfortable exterior includes moisture seals, making the lenses dust- and water-resistant. Both lenses carry a \$600 street price. **Contact:** Tamron, tamron-usa.com.



<< Olympus AIR A01

The **AIR A01** from **Olympus** is an open-platform Micro Four Thirds camera you attach to your smartphone, combining the benefits of the 16.05-megapixel MFT Live MOS sensor and interchangeable MFT lenses with the intelligence of the smartphone. The AIR A01 is operated by using the smartphone screen (including touch AF, plus a mode dial function for experienced photographers), with electronic shutter speeds from 4 seconds to 1/16,000, 10 fps shooting at full resolution (with focus locked at the first frame), 1080 and 720 video at 30p, ISO settings from 200-12800 with +/-5 EV of exposure comp, storage on microSD media so you don't fill your smartphone's memory and more. Dimensions are 2.2x2.2x1.7 inches; weight is 5.1 ounces (not including the smartphone). Estimated Street Price: \$299.99. **Contact:** Olympus, getolympus.com.

XEEN By Rokinon >> Cine Lenses

Rokinon has introduced three new **XEEN** manual-focus cine lenses, matched in size, maximum aperture and features for ease of switching from one to another on the set. The **24mm T1.5**, **50mm T1.5** and **85mm T1.5** all can cover a full-frame (35mm) format, and feature internal focusing (the front element doesn't rotate and the lens doesn't extend during focusing) and 11-blade apertures for best bokeh. A 200° throw on the cinema-gearred focusing ring makes for smooth and precise setting, and the cinema-gearred aperture ring is stepless. Focusing and aperture scales are marked on both sides. Each lens is multicoated and color-matched to a factory standard. The lenses are available in Canon EF, Nikon F, Micro Four Thirds, Sony E and PL mounts. Estimated Street Price: \$2,495 (each). **Contact:** XEEN, xeenusa.com.



DPP In Focus

New Tools Of The Trade

Sony RX10 II >>

Building on the popular RX10, the **RX10 II** features Sony's new stacked 20.2-megapixel, 1-inch Exmor RS BSI CMOS sensor with 5X faster readout, thanks, in large part, to the on-sensor DRAM chip. The new sensor also makes possible 14 fps shooting at full resolution (with focus locked at the first frame) and internal 4K/30p video with full pixel readout, no binning or line-skipping. The built-in Carl Zeiss 24-200mm (35mm-camera equivalent) *f*/2.8 lens covers a wide range of popular focal lengths, with focusing down to 1.2/9.8 inches (Wide/Tele), while optical SteadyShot image stabilization helps maximize handheld sharpness. A tilting, 3.0-inch, 1228K-dot LCD monitor complements the XGA OLED eye-level electronic viewfinder. The RX10 II measures 5.1x3.5x4.0 inches and weighs 27.2 ounces. Estimated Street Price: \$1,299. **Contact:** Sony, store.sony.com.



<< Fujifilm X-T1 IR

Fujifilm's flagship mirrorless interchangeable-lens camera is now available in a special IR (infrared) edition. Advanced IR technology allows the **X-T1 IR** to "see" radiation from 380nm-1000nm and, thus, record data important to technical, law enforcement, medical and scientific professionals. Otherwise, the new camera is the same as the X-T1, with Fujifilm's 16.3-megapixel, APS-C X-Trans CMOS II sensor (with unique RGB filter array that minimizes moiré, eliminating the need for a blurring OLPF filter), dust- and weather-sealed body, high-res OLED Real Time Viewfinder with Digital Split Image and focus peaking to aid manual focusing, quick hybrid AF, electronic shutter speeds up to 1/32,000, 1080/60p video, an intervalometer for time-lapse shooting and more. Dimensions are 5.0x3.5x1.8 inches, and weight is 13.7 ounces. Estimated Street Price: \$1,699. **Contact:** Fujifilm, fujifilmusa.com.

Graava Action Cam >>

Action cams can be mounted anywhere and record action wherever you go, and the **Graava** camera throws in a new twist: It can automatically edit three hours down to the "best" five minutes. It incorporates five sensors—camera, GPS, accelerometer, microphone and (optional) heart rate—and uses data from these to determine what's most interesting. Use the app on your smartphone to tell Graava what you want (say, condense three hours into a few minutes), drop the camera in its charger and let it do its thing. It will detect that it has power, activate WiFi, and automatically sync and edit the video, even notify you when the clip is ready for you to share. (You also can edit your videos manually, using the app.) The camera can produce 1080/30p and 720/60p video and 8-megapixel still images. Focus is fixed. The 1.7x2.6x0.8-inch, 2.1-ounce device is water-resistant, and has a 130° angle of view. Estimated Street Price: \$399. **Contact:** Graava, getgraava.com.





Gitzo Traveler Tripods

The new **Traveler tripods** from **Gitzo** feature Carbon eXact tubes that are significantly stiffer than the previous-generation Carbon X, thanks to High Modulus (HM) carbon fiber with larger tube diameters for improved performance without sacrificing weight. New Traveler G-lock technology makes possible taller tripods with compact folded lengths. The tripods now include a short column for quicker switching to ground-level shooting and handy carrying straps. Four tripods are available, plus a Traveler Monopod. All can be purchased legs-only, or as kits with Gitzo's new Center Ball Heads, which feature extremely good balance and tungsten disulfide coating for smooth operation and strong locking. An independent pan lock makes it easy to make panoramic photos. The GH1382TQD and GH1382QD heads are designed to fit seamlessly between the legs of the Traveler tripods. Estimated street prices range from \$289.99 for the Monopod with no head to \$1,099.95 for the Series 2 GT2545T tripod with GH1382QD Center Ball Head (this tripod extends to 60.8 inches, weighs 2.9 pounds and can support 26 pounds). **Contact:** Gitzo, gitzo.us.



HOYA HD3 Pro Photo Filters

HOYA's HD2 pro filter line features strength and performance, and the new HD3 filters improve on that—and by a lot. The new **HD3 UV filter** features chemically enhanced HOYA optical glass 4X stronger than standard optical glass and 32-layer multi-coatings that are 800% harder than those of the HD2 UV filter, thanks to a new ultrasharp nanocoating and process of applying layers to HD3 glass. A lightweight, one-piece aluminum frame minimizes vignetting with wide-angle lenses, yet retains front threads for a lens cap. The HD3 circular polarizer, of course, requires two pieces for rotation, but it's also stronger, with coatings 200% harder than those on the HD2 CIR-PL. Both filters feature excellent optical characteristics and performance, and both are available in sizes from 37mm to 82mm. Estimated Street Price: Varies with size—\$98 (HD3 UV 67mm); \$160 (HD3 CIR-PL 67mm). **Contact:** HOYA (Kenko Tokina USA), kenkotokinausa.com.

Ricoh THETA S >>

Pros are always looking for new ways to image the world around them. **Ricoh's** new **THETA S** is the latest version of the company's 360° camera that captures 360° spherical stills and videos of the scenes surrounding the user. Featuring a new, larger sensor and faster *f*/2.0 lenses, the THETA S can deliver nearly 14-megapixel still images and 1080/30p video (as well as live streaming), along with those faster lenses (there's a lens on each side of the camera, each taking in a 180° angle of view). The tiny device (1.7x5.1x0.9 inches, 4.4 ounces) can be handheld or mounted on a tripod, and can focus down to within four inches of the front of the lens. The images and videos can be uploaded to theta360.com, Facebook, Twitter and Tumblr, and posted to Google Maps, Google and YouTube 360° Channel. The new Ricoh THETA S app for smartphones and tablets can be used to make camera settings and view the spherical photos and video wirelessly via improved built-in WiFi that transfers data 4X faster than the current THETA model. The battery is good for about 260 shots per charge, and files are stored on 8 GB of internal memory. Estimated Street Price: \$349.

Contact: Ricoh, theta360.com.



Leica S (Typ 007) >>

Leica's sleek **S (Typ 007)** is the first of the medium-format S models to use a CMOS sensor. Resolution is still 37.5 megapixels, but the 45x30mm CMOS sensor (with no OLPF) allows it to deliver video (4K/24p in Super 35 format, plus 1080 FHD at 30p/25p/24p), 3.5 fps still shooting at full resolution (the big 2 GB buffer helps here, too) and a normal ISO range of 200-6400 (pullable down to 100). There's predictive AF for action, as well as manual focusing via the big pentaprism optical finder, or precision focusing in live view with focus peaking on the 3.0-inch, 921K-dot LCD monitor. Rare in medium format, both WiFi and GPS are built in so you can operate the camera remotely and wirelessly from your iPhone, operate it tethered via very quick USB 3.0 using Leica's Image Shuttle 3.0 software, and geotag your images as you shoot.

Images can be stored on CompactFlash or SD/SDHC/SDXC media as 16-bit DNG and/or JPEG files. The sturdy magnesium body measures 6.3x3.1x4.7 inches, weighs 2.8 pounds, and is weather-sealed; the shutter is tested to 150,000 cycles. Like its S-series siblings, the S (Typ 007) can use all Leica S-mount lenses, which currently number 10 (six of which contain central leaf shutters that allow for flash sync up to 1/1000 seconds) and include a first-rate tilt/shift lens. Adapters allow mounting of Hasselblad and Contax lenses, while retaining AF and automatic aperture control. Estimated Street Price: \$16,900. **Contact:** Leica, leica-camera.com.

<< **Sony a7S II**

Low-light and video specialists will be very interested in **Sony's** latest full-frame mirrorless camera. The new **a7S II** features a normal ISO range of 100-102,400, expandable to 50-409,600, and can do 4K (3840x2160) video directly to memory card (no external recorder needed), at 100 Mbps via XAVC S with full pixel readout (no binning). S-Log3 provides better tonal reproduction from shadows through midtones than the a7S's S-Log2 video. The new camera can also do Full HD at up to 120 fps, plus 4x/5x slow-motion. The new five-axis optical image-stabilization system can be used for still or video. Dynamic range is said to be "extra-wide." Besides its full-frame, 12.2-megapixel Sony Exmor CMOS sensor, the a7S II offers a shutter tested to 500,000 cycles (with speeds from 30 seconds to 1/8000, and electronic first curtain), a 0.5-inch, 2359K-dot OLED eye-level Tru-Finder, a tilting 3.0-inch, 1229K-dot external monitor, shooting at 5 fps in Speed Priority Continuous Mode, 169-point Fast Intelligent on-sensor CDAF and built-in WiFi with NFC. Like all a7 models, the a7S II can use Sony E-mount lenses, Sony A-mount DSLR lenses (with a Sony adapter) and a wide range of third-party lenses via third-party adapters. The rugged magnesium-alloy body measures 5.0x3.8x2.4 inches and weighs 20.6 ounces. Estimated Street Price: \$2,499.99. **Contact:** Sony, store.sony.com.

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Visioneer's Gallery

Worlds Apart

Inspired by the ancient Silk Road, Drew Tal examines the exoticism of human faces from faraway places, and that which binds us, rather than separates us *By Baldev Duggal*



© Drew Tal

“The relation between what we see and what we know is never settled. Each evening we see the sun set. We know that the earth is turning away from it. Yet the knowledge, the explanation, never quite fits the sight.” The underlying restlessness in our acts of seeing to which John Berger refers amplifies even further when that which we know as existing in faraway lands confronts us, fixes its gaze upon us and reveals something beyond our realm of knowing. Drew Tal, an artist who works at the overlap of photography, painting and digital imaging, carefully constructs for us such confrontations from around the globe and

makes us see that which we know as belonging to the exotic and inaccessible.

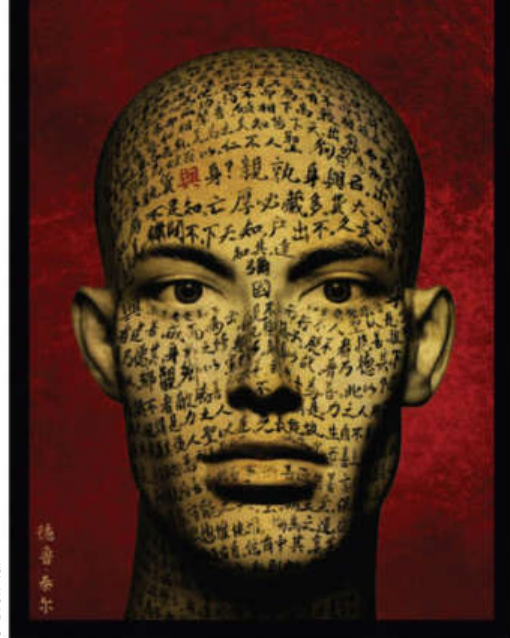
A tapestry of undulating white suddenly interrupted by a set of beautifully adorned piercing eyes, a digital portrait of a Vietnamese family convincingly like a medieval tempera painting, a female figure blending into the oriental pattern on the wall, shaped only by the stark black curve of the hijab—each image is an interaction that stirs the elemental emotion arising from someone’s gaze meeting yours. Drew carefully constructs these images in an un-layering of ethnic stereotypes, artfully celebrating the beauty and accoutrements that

symbolize people who live in a different cultural context than ours, while making sure that what we connect with in the image isn’t what separates them from us, but the universal humanity that binds us to the subject in the portrait.

In “Worlds Apart,” an exhibition of Drew’s art that opened in New York and traveled on to Paris, the artist created a series of new works symbolically inspired by the Silk Road—“the ancient network of interlinking trade routes across the Afro-Eurasian land-mass.” Duggal has been working with Drew for more than a decade, and producing the pieces for his exhibition was



© Drew Tai



© Drew Tai

a creative collaboration between our team, who intuitively understands how each one of his prints should be exhibited. The dynamism and innovation in Drew's images were matched with the equally diverse choice of printing and mounting substrates we offer, ranging from digital photographic paper, fine-art textured paper, fabrics and gallery plexi. The larger-than-life portraits hung on gallery walls take the viewer on a journey across Asia, each portrait layered with symbolisms that invoke reflection on the culture the subjects inhabit.

"The main subject in my photography is the human face, especially ethnic faces and their 'exotic' features," Drew notes. "In my travels, I study ethnic groups of Asia, the Far East, India, as well as the Middle East. Travel ignites inspiration for me. When I visit foreign countries and observe people in their unique garb, going about their daily routines, praying, celebrating, or even protesting, I absorb what they are, what they look like, how they are dressed and their colorful traditions. When I come back to New York, that inspiration leads to the creative process for me."

Every image Drew creates is highly researched and crafted with skill—from finding the right subject to photograph, designing the lighting, sets and styling of the photo shoot, to digitally editing and transforming the chosen image. As Drew states, "Editing and transforming a single image may take

weeks, sometimes months, but for me it is the most fulfilling stage of the process. I can work on an image for a whole year, but then a special moment occurs. It is as when you take a very long journey, not knowing where the final destination is going to be, and then there is this moment when you know you have arrived...a euphoric moment in which you feel complete and 'at home.' I never go back or touch that piece after that moment."

This meticulous process of taking each image "home" makes itself visible in the series in Drew's recent exhibition.

In "Light from Within," Drew puts a spotlight on the subject's eyes. "I am enchanted by the eyes," he declares, "and in this series, I highlight their shape, expression, depth and beauty. I focused the light predominantly on the subject's eyes and let the shadows fall on the rest. My intention is to grant the illuminated

eyes an unspoken voice and let them tell the most intimate of stories."

In the series "Infallible Symmetry," he covers the Islamic and Indian portraits

in vegetal and geometric patterns. "The infinite symmetry found in these intricate patterns is considered to be divine. The result is a seamless union of the human and the divine, celebrating and complementing each other's essence," says Drew.

The "Veil, Unveiled" series comprises a set of subjects wearing the traditional

hijab. While these pieces may be laced with sociopolitical implication, Drew leaves the purpose of the veil's presence up to the viewer's interpretation. "Perhaps because I grew up around Islam—the city of my childhood had a large Muslim population—I find that practice to be straightforward and uncomplicated," he notes. "I simply find the veil to be an integral element of my subject's identity and uniqueness. I am not compelled to examine, explain or politicize the purpose of the veil's presence and in my art I prefer to leave it to the viewer's interpretation."

Behind every artist is a team of patrons, supporters and collaborators who help birth his or her artworks into the public domain. It's our privilege to have played that role in bringing Drew's beautiful work into the limelight, as his passion for pushing the boundaries of what's possible digitally and how it translates into fine-art collectibles is a true inspiration for us. I'm proud to quote Drew's acknowledgement of our work with him: "Over the past seven years, my fashion photography evolved into digital art, and I can always count on Duggal to offer the very latest, cutting-edge technology in printing and mounting. My art has been exhibited in many fine-art galleries and museums around the world, and Duggal is the one source that consistently provides and produces museum-quality pieces I'm very proud to display." DPP

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R/ Evolution

Sharpening Artifacts

Learn how to use detail-enhancing tools to sharpen images to reflect your unique way of seeing the world

By John Paul Caponigro



An optimally sharpened image balances the details and tonality to create a more visually compelling image.

The creative possibilities for detail enhancement in digital imaging are simply staggering—and growing more so every day. Before their advent, few dreamed of having such possibilities, while many didn't dare. Today, contemporary practitioners perform yesterday's miracles daily. Given the newness of the technology, it's not surprising that some find themselves arriving at a destination far astray from their intended target, whether consciously or unconsciously. Some don't go far enough, while others go too far. Jeff Schewe, author of the definitive resource on the subject *Real World Image Sharpening*, is fond of saying, "Under-sharpening is a venial sin while over-sharpening is a cardinal sin." There

is a cure, and it doesn't involve penance; it's much simpler, less painful and more effective than that. Learn what to look for and take appropriate measures.

Whether you're testing or applying sharpening, view your images at 100% screen magnification to accurately assess detail. Zooming in or out to any other screen magnification may hide artifacts and, in some cases, display banding onscreen where none exists.

So what does sharpening an image do anyway? Simply put, it accentuates line and texture through contrast. That's all any of the sharpening filters do; they just produce different effects (desirable

and different artifacts (undesirable).

When assessing the strengths and weaknesses of detail-enhancing tools, it's useful to look closely at the two basic building blocks of detail: line and texture. Whether thick or thin, a line can be light or dark; often the two exist together. Texture can be divided into different frequencies of detail: high (fine), medium (coarse) and low (smooth).

Do all images always benefit from noise reduction and sharpening? Most do. Still, I recommend, "Always avoid saying always and never say never—except when saying that."

>> More On The Web
John Paul Caponigro's in-depth instructions on image-processing and printing techniques are available as an extensive archive online at digitalphotopro.com/technique/revolution.

Similarly, most images benefit from noise reduction—or sophisticated blurring. Reduce noise before sharpening. If you reduce noise after sharpening, it's likely that you won't go far enough while sharpening and you'll undo some of sharpening's benefits.

Some would like to use one setting to sharpen all images. This commonly produces suboptimal and sometimes disastrous effects. To achieve optimal results, you simply can't sharpen all images equally—because not all images are created equally.

Different images may be more or less well focused and have more or less depth of field.

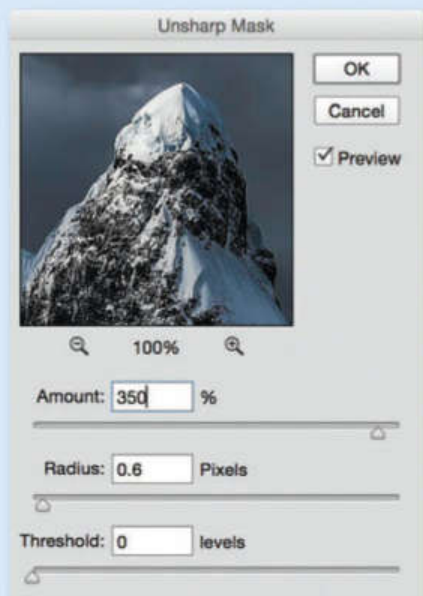
Different images may be exposed at different ISOs, so separating noise from micro-texture may be more or less difficult.

Different images may contain different frequencies of detail; they'll benefit by being sharpened selectively, sometimes with different settings and even different filters.

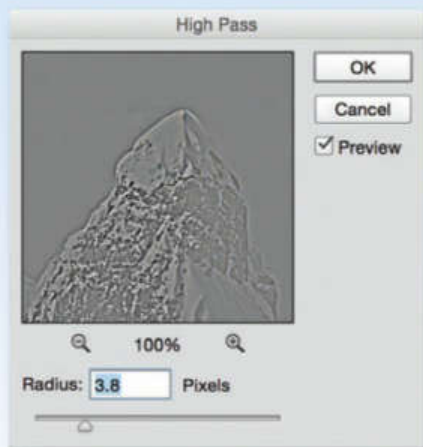
Different people may like their images softer and smoother or sharper and more textured; what balance is finally struck depends on the individual, the image and what's being said.

While automation after testing can be used effectively at certain stages in a digital imaging workflow (sometimes during capture sharpening, rarely during creative sharpening, often during output sharpening), there's simply no substitute for looking closely and responding sensitively, especially if you want your images to convey your individual ways of seeing.

Identifying and developing a sensitivity for the artifacts digital sharpening produces will help you choose a sharpening method and what settings to use during any stage of your sharpening workflow. You can easily see the artifacts digital sharpening produces by overdoing it. Apply a filter like Unsharp Mask at maximum strength and look closely at what happens.



The filter Unsharp Mask produces hard-edged contours and accentuates texture more aggressively.



When a duplicate layer set to a Blend Mode of Overlay is filtered with High Pass, noise accentuation is minimized and contour accentuation is more feathered.

Following are the seven most common digital sharpening artifacts. These artifacts can be reduced in one or more ways. Here's a list of options for each:

1. Noise

- Raise Unsharp Mask's Threshold.
- Use High Pass sharpening.
- Blur High Pass layers.
- Mask select image areas.

2. Exaggerated Texture

- Reduce Unsharp Mask's Amount.
- Use High Pass sharpening.
- Blur High Pass layers.
- Mask select image areas.



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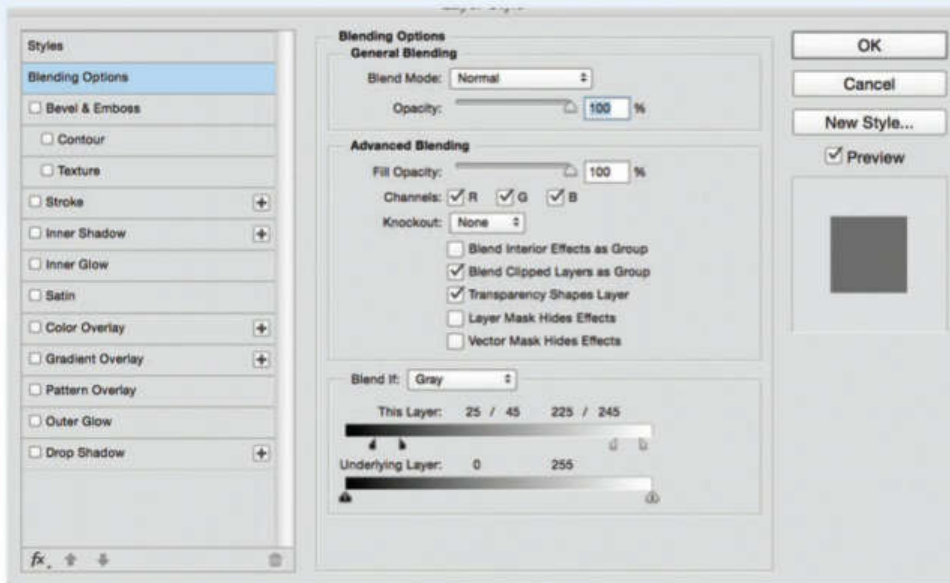
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These regions highlight the typical problems encountered when images are over-sharpened.



Double-click a layer to use Layer Styles/Blend If sliders to remove effects in shadows or highlights of This Layer, revealing their original states on the Underlying Layer.

3. Visible Light Halos

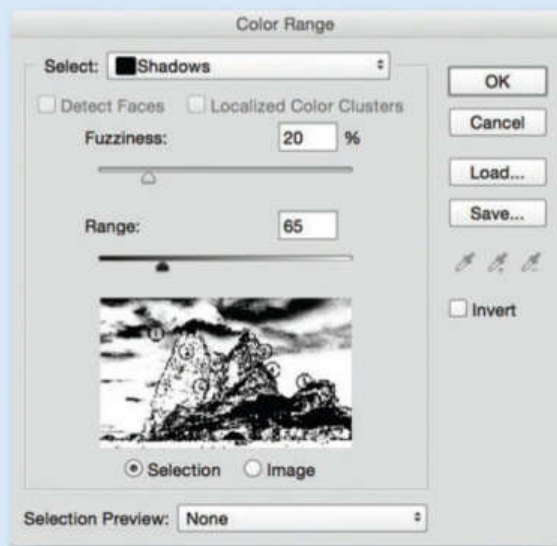
Reduce Unsharp Mask's Radius to make halos thinner. Reduce Unsharp Mask's Amount to make halos darker. Set the Blend Mode of the Unsharp Mask filter or layer to which it's applied to Darken.

Use High Pass sharpening for softer, more feathered contour accentuation.

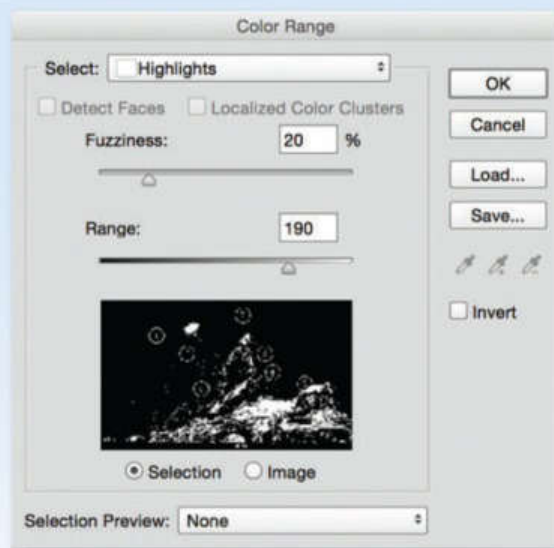
4. Visible Dark Lines

Reduce Unsharp Mask's Radius to make halos thinner. Reduce Unsharp Mask's Amount to make halos darker. Set the Blend Mode of the Unsharp Mask filter or layer to which it's applied to Lighten.

Use High Pass sharpening for softer, more feathered contour accentuation.



The Select menu's Color Range feature makes isolating highlights or shadows easy.



5. Loss of Highlight Detail

Use a sharpened layer's Layer Styles/Blend If sliders to recover it. Mask the highlights.

6. Loss of Shadow Detail

Use the Blend If sliders in Layer Styles to recover it. Mask the shadows.

7. Increased Saturation

Change the blend mode of the filter or sharpened layer to Luminosity. Desaturate High Pass layers.

Conclusion

If you know what to look for, you'll know what path to choose and how far down it to go. Training your eye for what to look for and understanding the upper limits of what other people find

to be naturalistic, or at least not distracting, is the first step to developing your unique sharpening style. The second step is learning how to produce certain effects and avoid others with the tools at your disposal. Once you've taken these steps, you can take the third and final step, knowledgeably putting craft in the service of your vision to make compelling visual statements. Enhancing detail is one area of expertise that's well worth mastering for all photographers. DPP

John Paul Caponigro, author of Adobe Photoshop Master Class and the video series R/Evolution, is an internationally renowned fine artist, an authority on digital printing, and a respected lecturer and workshop leader. Get access to a wealth of online resources with his free newsletter Insights at johnpaulcaponigro.com.



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PROFESSIONAL PHOTOGRAPHERS OF AMERICA

Apple says their iPad Pro is the future of computing. We say it will change your photography workflow.

By David Schloss

In 2010, Steve Jobs unveiled the iPad, Apple's legendary tablet, saying that the world needed something "better than a laptop, better than a smartphone," yet living in a space between the two. While the iPad has become increasingly powerful, it still has fallen short of being a professional device.

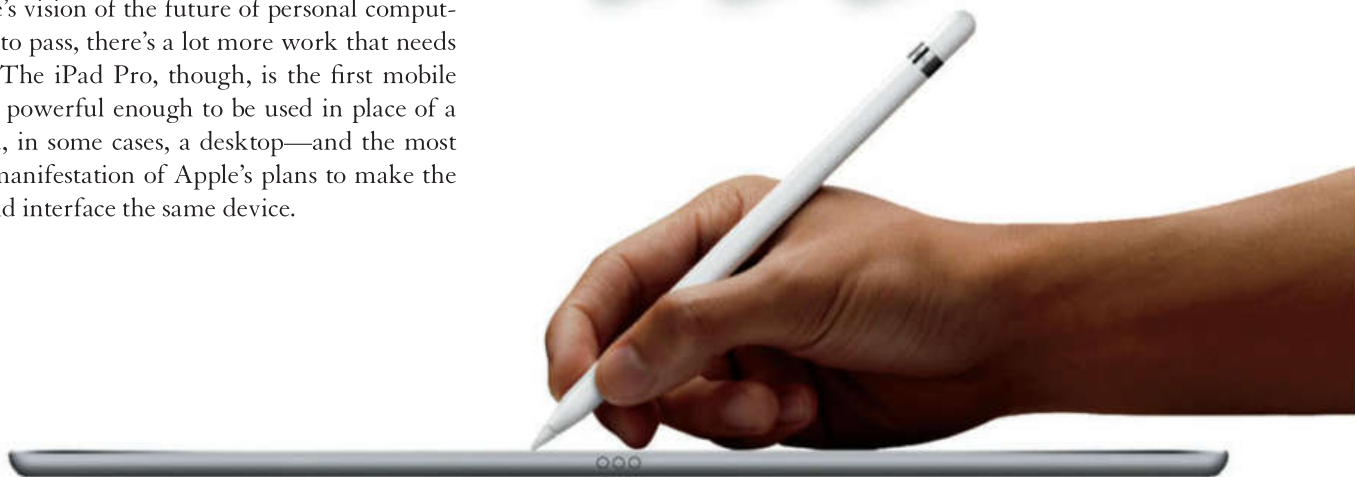
Jobs said that the first iPad had a set of tasks it had to do better than a laptop or an iPhone: browsing, email, "enjoying and sharing" photos, watching videos, listening to music, playing games and reading ebooks.

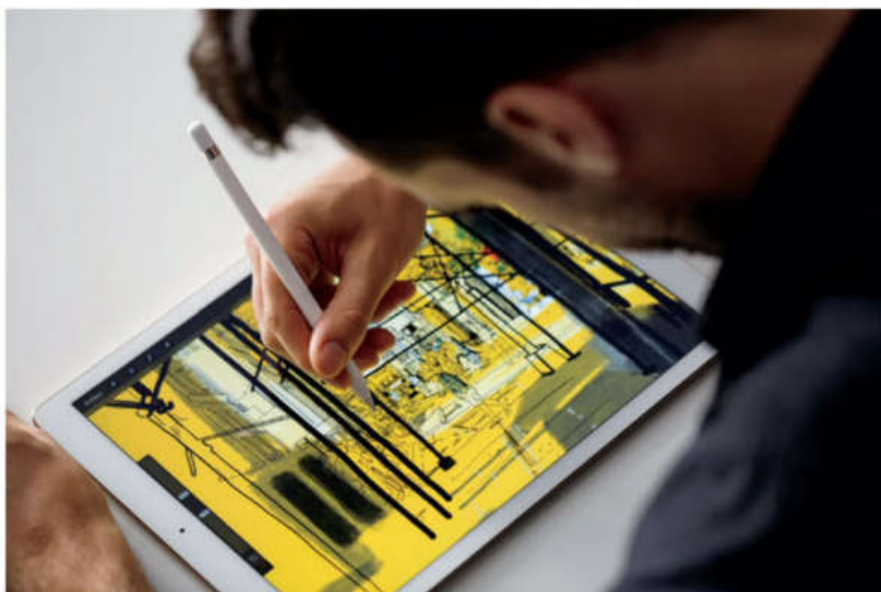
Just five years later, when Apple's current CEO Tim Cook unveiled the new iPad Pro—a supercharged and supersized version of the iPad—he said Apple's new tablet was the start of a new vision of personal computing. Adobe, in a blog post about the iPad Pro, said, "Creative potential cannot be chained to the desktop. Such limitations defy all we know about creativity, namely that inspiration strikes where you least expect it, and we are most creative (and productive) on our own terms, which has new meaning in a mobile world."

Make no mistake about it, the iPad Pro marks the start of the extinction of the Mac or Windows machine you use today. This transition won't happen overnight, but with the new iPad Pro, users—especially photographers—not only can see the future on the horizon, but can actively move away from the traditional computer.

Certainly, this first iPad Pro isn't powerful enough to replace desktop computers for professional photographers, but it's an incredible new tool to become part of a photographer's workflow.

For Apple's vision of the future of personal computing to come to pass, there's a lot more work that needs to be done. The iPad Pro, though, is the first mobile device that's powerful enough to be used in place of a laptop—and, in some cases, a desktop—and the most interesting manifestation of Apple's plans to make the computer and interface the same device.





The new iPad Pro may not be powerful enough for every job, but it represents a major shift in the way professional personal computing devices are designed.

Power Computing

The iPad Pro uses Apple's new 64-bit A9X processor, which the company claims is not only 1.8x faster than the A8X processor in the previous iPad Air 2, but is faster than "80 percent of portable PCs" and that the graphics in the iPad Pro is faster than 90 percent of portable computers.

It's hard to test if the iPad Pro's processor is indeed faster than most portable computers—it's not even clear if Apple is counting the myriad low-power netbooks on the market as being "portable PCs" (they likely are, which would explain how the iPad Pro gets such a high percentage). If most portable computers sold today are low-end netbooks, then the iPad Pro certainly bests them.

What's clear is that the iPad Pro is not only powerful enough to do the majority of business tasks a photographer faces each day (email, contacts, spreadsheets, location scouting, etc.), but is also powerful enough to become a major creative tool for the studio.

The iPad Pro has some other high-end features, including a 12.9-inch LED backlit multi-touch display that's 2732x2048 at 264 ppi. It has an 8-megapixel camera with backside illumination (for better low-light quality) and a five-element lens at $f/2.4$. It's also able to capture full HD video at 30 fps.

These specs aren't as fast as, say, the MacBook Pro's, but they're at least as

powerful as the company's MacBook. And, thanks to the multi-touch display and the new Apple Pencil—the company's new stylus for the iPad Pro—it can do some things that a laptop can't.

Creative Endeavors

As Apple begins to move people from a personal computer to a mobile paradigm, the iPad Pro becomes a central piece in that strategy. With a new pro model available, a new breed of apps will become available, giving the iPad many of the tools found on desktop or laptop computers—and some things they can't do.

With a full suite of productivity tools from Microsoft and others, and a range of creative tools for the photographer, it's already possible to use the iPad Pro for a budget spreadsheet one moment and then as a canvas for an illustration or a watercolor the next.

More importantly for the photographer, the iPad Pro, with its large, clear display, becomes an ideal mobile editing tool. Thanks to cloud-based systems like Adobe's Lightroom Mobile and Creative Cloud, it's possible to start editing images on a desktop and then continue to work on them on the iPad Pro—anywhere you happen to be.

Adobe Lightroom Mobile, which was released in 2014, allowed photographers to sync libraries with their iPads, enabling mobile editing and rating.



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HI-TECH STUDIO

The update to Lightroom and to their Creative Cloud services makes it much simpler to work with images on the iPad. All Collections in the Lightroom desktop now have an icon next to them, which, when clicked, syncs the collection to the cloud. This works with a single image or a thousand images.

Lightroom Mobile is particularly useful for rating images and culling down a shoot because it's easier to rate images using swipes than keyboard shortcuts. But Lightroom Mobile doesn't just facilitate rating, it's also possible to edit and adjust images in the app, and adjustments are carried back to the desktop.

What the iPad Pro adds to this workflow is an incredibly large screen on which to do edits and the power to make image adjustments without bogging down the system. It's likely that Lightroom Mobile will add more powerful editing and adjusting to make use of the iPad Pro's speedy processor.

Adobe has also released several design tools specifically for the iPad Pro, three of which were showcased at the launch. Adobe Photoshop Fix is an exciting new mobile retouching appli-

Adobe won't be the only company to leverage the power of the iPad Pro. We expect to see a flood of programs that allow for both photographic editing and illustrations. What's exciting about

“...the first mobile device powerful enough to be used in place of a laptop—and, in some cases, a desktop—and the most interesting manifestation of Apple's plans to make the computer and interface the same device.”

cation that allows for some Photoshop editing on the iPad Pro that wasn't previously available, even on a desktop. Photoshop Fix, for example, uses face detection to speed up retouching and correcting portraits.

The company also showed off Adobe Sketch (a drawing program that uses the pressure and tilt-sensitive Apple Pencil) and Adobe Comp CC, a tool for quickly building magazine or website comps on the fly and sharing them over Creative Cloud.

these new programs is that they have the potential to do things that personal computers haven't.

Apps like Procreate, Paper and others (including Adobe's new Photoshop Sketch) turn the iPad Pro into a simulated art studio, and the ability to work with much faster response from the input device will make these tools even better for the creative.

With built-in WiFi, the iPad Pro is also a great companion for photographers using cameras that have WiFi



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transfer built in. It will be possible to move images from a camera over WiFi to the iPad Pro, edit them using touch, gestures or by drawing with the Apple Pencil, and then share them with clients on social media with no wires or card readers.

That sort of streamlined workflow can radically transform working for clients. Several years ago, I worked on a social-media job that had to stream photos in real time. To accomplish this, I shot images and then handed off my SD cards to an editor. The images were transferred via card reader to an editor's computer where they were adjusted and captioned. Then the images had to be exported and emailed to the social-media editor's phone to be uploaded onto Instagram.

With the iPad Pro, I'd have been able to shoot and then wirelessly transfer images to my iPad, where they could have been edited, adjusted and uploaded—all on the same device. That's a huge change.

Future-Proofing

As the first generation of Apple's "Pro" tablet line, the iPad Pro is at least un-mature. There will be a number of improvements necessary for the device to really meet its potential. Future models will need to have even more powerful processors, more RAM, and the ability to connect to HD or 4K displays and other input options, among other things.

The iPad Pro, though, is already much more powerful than the first "Pro" Mac laptop, and the touch technology and built-in connectivity would have made Apple's first portables jealous.

By creating a Pro device, though, Apple has indicated that they're in the process of changing not just how the average computer user interacts with computing devices, but with the way that pros do so, as well.

The company, better than almost anyone else, knows what the professional creative needs to get work done. It's telling that the first apps displayed

on the iPad Pro were photography and design apps. It shows that Apple is looking to change how photographers get work done.

We might be a few years away from that vision becoming fully realized, but the iPad Pro is already an incredibly strong tool for the photographer, thanks to its versatility and power. By integrating Apple's new tablet into a photographer's workflow, it's going to be possible to perform many tasks faster and with far greater flexibility than is currently possible.

A decade from now, people are going to marvel at the fact that we used personal computers in a professional photography environment the way that some people marvel that we ever used film. Technology is changing, and the iPad Pro is at the forefront of a new creative era. **DPP**

You can reach David Schloss on Twitter or Instagram @davidjschloss

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Taste Maker

Food photographer Matt Armendariz uses storytelling to guide his creative process and fill his portfolio with more than just pretty pictures

By William Sawalich >> Photography By Matt Armendariz



Although he has built a portfolio filled with beautiful travel, architecture and lifestyle images, Matt Armendariz's first love is food. It's the thing that drew him to photography in the first place.

A professional photographer for just five years, Armendariz has 25 years in the food business. He used to work in marketing for large natural food retailers, where, as a designer and an art director, he couldn't help but

notice how much he enjoyed his days in the studio with the photographers who were hired to shoot his projects. Those photographers—every last one of them—were exceptionally generous with their time and knowledge, and they encouraged Armendariz to pursue his interest in photography.

"I jokingly say that I was literally the most annoying person for three years," he explains. "I carried my camera around everywhere. I was, like, okay, I have an eye for this, I under-

stand light and proportion, but now I need to understand the mechanics of how to take a photo, all the technical aspects. Photographers were so great: 'Bring your camera, let's play.' I was constantly asking them questions. It was almost like the schoolroom for me. They were very generous and helpful and took time to mentor me."

Armendariz quickly got a handle on the technical aspects of photography and then soon mastered them. He has set a high standard for the subtleties of



lighting, in particular. His portfolio is full of natural light, in keeping with the popular aesthetic of bright and airy food photography, yet he manages to give his work a level of polish and precision without taking away from the illusion of reality so many clients are after. That's the difference, he says, between an amateur and a professional: the ability to create the appropriate aesthetic on demand, even when a shortcut isn't available.

"In the past two years, I've shot a

whole rebranding for KFC," he says, "and I've been working with Target. What I'm noticing is, these are the jobs that go to the people who really have the experience. 'I can take beautiful pictures of food in my house.' Well, that's fine, but can you do it with six art directors around you, the entire agency, a giant studio and four assistants? Early on, it was, like, it's great that I know how to harness the power of natural light. But what if I'm out for a job and I really want it, and they're, like, 'Our

FOOD PHOTOGRAPHY HAS BEEN DEMOCRATIZED
 "I think it's just like any other business," explains Matt Armendariz. "A part of me wants to say it has changed because everyone can take pictures of food, and you have to understand food is something we all do, so most of us have access to it three times a day, most of us have a phone with us. So food photography has been democratized by all this, through blogging, but I've always felt that's a good thing. Always. Because it unites us, and I think that's more important than dividing us."

Taste Maker

IMPORTANCE OF PROPS AND STYLING

"No one is ever going to make the same thing look the same. What you realize as a tabletop photographer is that everything we do for the most part exists within this 2x3-foot space. Everything lives there, so every detail becomes magnified and amplified, and it has a lot more significance. It just doesn't happen accidentally. That doesn't mean that there's not beautiful, weird, random moments on the table, and you're, like, okay, everyone stop, let me photograph this, because that happens, too. But when you're in the studio, everything has to happen for a reason."





restaurant is in the basement.' I don't have the luxury of just saying, 'Look how beautiful, it was really easy, I just opened the window.' I've got to light it. I've got to make it look exactly like why they hired me. And my portfolio is 99% natural light. It's those moments that split the true professionals from everyone else. And so you absolutely have to know how to do that."

To simulate natural light with strobes, Armendariz first reverse-engineered his favorite natural-light photographs.

"It was a process of teaching myself," he says, "because I didn't know anyone who was shooting food with strobes the way I wanted it to look. If you look at food photography from the '80s and '90s, of course, there are nine lights on it with reflectors and it's so overly lit. I had to take a step back, I had to look at how I liked to shoot—a certain color temperature, a certain direction and a certain intensity. That started my formula. So how can I get that with strobes? I

figured out that it takes so much diffusion to get a strobe to be as soft as a window. For me, it's literally a couple of heads just bounced and diffused and filled. The light source is so far away from my set sometimes. Sometimes, it's two 8x8 Scrim Jims between the set and the lights, while the lights are still shining into big V-flats. I need this giant, soft, nondirect light coming over everything. And it's only then that I go back in and shape it, because it's still pretty flat. So, rather than cut my light, I have to start shaping it, especially when clients say, 'Oh, we want this very moody, we want the highlights bright, but we want some dark shadows.' Really, it's just black flags, black silks, black V-flats, all around. Some foods, you can't tell the difference—it makes no difference whether you strobed it or whether it was natural light. Other things really make a huge difference."

Armendariz says his starting point with any image is determining the

THE MARTHA STEWART EFFECT

"I cooked on her TV show," recalls Armendariz. "I'm not going to lie and say I wasn't nervous. It's literally *Martha Stewart*.... It was the best experience. She was delightful. When somebody like Martha Stewart pulls you aside and says, hey, I picked you personally to be on my show because I like your photography, you're, like, holy shit, that's pretty amazing. It was fantastic. And then I think back to what she and everyone who has worked with Martha Stewart, what they've done for photography, what they've done for food photography specifically. Starting in the late 1990s, they really changed the way we see food, I mean, Martha Stewart specifically. She's this indirect model for how we see food. And every editor and photo director that has worked with her and has since moved on, they're the best people in the industry, they all have done this Martha Stewart training. It's like the Martha Stewart school of publishing. And they're all phenomenal. She was shooting natural light early on and changing the way we looked at food in these magazines—this combination of amazing typography and graphic design and photography, winning all these awards and changing how we see food. It's really, really monumental."

Taste Maker

HARD LIGHT VS. SOFT LIGHT

"If I'm going to use hard light, it's almost always going to be natural, because I think hard light with strobe, a bare head, that crosses over a little too much for me."



story he's going to tell. Sometimes, it's a directive provided by the client, other times, it's a simple narrative he creates just to give direction to the elements in the scene—from the food styling to the props to the lighting. With a story in mind, things fall more naturally into place and the image will read easier for the viewer. It's like working from a script.

"For me, it's really all about the story," Armendariz says. "I love to write; I love to tell a story. There's no better way to communicate that than with light. When I think of dappled light that's kind of direct, but maybe gone through some trees, I think of being outside with people, a summer day, that kind of thing. That really drives a shot. To me, if a shot is a departure from the style that I'm used to shooting, the story is even more important."

"I'm not just shooting to make a pretty picture," he continues. "Many times I do, but in many cases, I'm in the studio, even with natural light, and it's just not doing what I need it to do to tell the story. And everyone is looking at the monitor, saying, 'Oh, but it's a pretty shot.' Okay, but that's not good enough. It's not telling the story. I think that's the art director in me. I need someone to look at this, spend half a second on it, and for me to really



CLEAN AND MINIMAL SHOTS, NO STORY

"Sometimes you don't want to communicate anything, and you want it to be as plain as possible. Not just like throw a seamless down and shoot it, but, you know, so clean and minimal. That speaks to the importance of prop styling; if it's only going to be two plain white bowls, they better be pretty spectacular one-of-a-kind things if that's what's carrying the style, which is supposed to be no style."



SOMETIMES IMPERFECTION IS BETTER THAN PERFECTION

"It's usually after we've got the shot, where I mess things up a bit where it's too sterile," says Armendariz. "It might not be appropriate; some people hate crumbs and they hate messiness. Other people love it. It really all depends. It's kind of funny. I'm always trying to push my creative limits within reason because there's really not a lot, the area that food photography lives in is pretty narrow. You can't take food away too much from food or it becomes something else completely. You know, I could shoot a fashion editorial in the most crazy, tricked-out, conceptual way, and it would really be great. But if you try to apply that to food, it loses what it's trying to do. It can still be cool, and people do that all the time, but for me, the message, it moves it away from making people want to cook. My job, the big picture, is to get people to make what I'm taking pictures of. Or to buy it."



Matt Armendariz's Gear

IN STUDIO:

Phase One 645

Phase One IQ180

Schneider-Kreuznach

120mm LS *f*/4.0 Macro

Schneider-Kreuznach

80mm LS *f*/2.8

LOCATION AND TRAVEL:

Canon EOS 5DS

Canon EOS 5D Mark III

Canon EF 100mm *f*/2 USM

Canon EF 24-70mm *f*/2.8 L II USM

Canon EF 50mm *f*/1.4 USM

Apple MacBook Pro

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make a point within that first reaction, that, yes, it's 4 o'clock in the afternoon or 7 in the morning or whatever."

Not all of Armendariz's stories are written by his clients. He believes in the importance of personal work to keep him creatively sharp. Sometimes, these images even attract new customers.

"Personal shoots have turned into stuff for clients," he says, "because they've seen the images and said, 'Oh, let's do that.' I work on a personal project because I want to tell the story the way I want to do it. When you're a commercial photographer, of course,

you put a lot of yourself into it, but you still have parameters to meet and a message you have to communicate, and it's somebody else's message. And you do it, and it's great, but there are just those moments where you do personal stuff because you want to do it the exact way you want to do it. Maybe I want to do a beach story, or I want to have six models come over and have a pizza party in the backyard. I'm constantly doing that kind of thing."

One of Armendariz's most requested images came from a test shoot. It's prominently featured on his website,

and it was a test collaboration with a prop stylist.

"The image with the hands," he says, "that was personal. That was testing. Three of us playing. Between food styling and the prop stylist, these moments come together. Like all things, it's the meeting of the minds, and it's sometimes greater than you expected, and it's all because of an accident. But those moments become really important as a business owner because you market yourself with those, or a certain image speaks to someone. It's the one image that's included every time I get a deck

or swipe or something from an ad agency. It's the single image that they pull of mine, no matter what the job is. Every one. It's interesting to be hired by clients years later who would never have that style then, but now they're into that."

The importance of personal work is a bit of advice that Armendariz regularly shares with young photographers. Luckily, he says, there are a lot of different ways to make a career in food photography. It's also quite possibly the easiest photographic discipline to practice on a shoestring budget. It all starts with a passion for food.

"People come to workshops and say, 'This is what I want to do, but I just don't know how,'" he says. "People really see food photography as just taking a picture, but it can go in so many different ways. You can report on food culture and go the *National Geographic* route, or do you want to be a big-time commercial food shooter doing fast

food and packaging? The commonality for all of it is that you have got to know how to shoot food six ways from Sunday. You have to know what it does, you have to understand it, you have to know food so well and then you're already so far ahead. I've heard people say, 'Wow, shooting food is so easy because it doesn't move.' But you have to know it inside and out. All the top food photographers that I know, there's this common thing: Everyone loves to cook and to entertain. And you have to look at the big picture of food. You have to know your subject as well as humanly possible.

"The other thing is to be as good as possible technically," Armendariz adds. "Shoot all the time. People get into a rut with food photography. 'Well, I only bake so I only shoot my pastries at home.' That's fine, but you just picked the one thing that can never be messed up in a photo. Pastries are beautiful. Even on a bad day, they're beautiful.



Paying It Forward

Matt Armendariz is happy to make the challenges of starting a business much less daunting for other photographers.

Not only does he share his knowledge with anyone who asks, he also teaches workshops, leads seminars and blogs freely about food and photography. It stems from his early experiences with the commercial photographers who generously showed him the ropes.

"I'm always giving back," he says, "or trying to, at least. It's not unusual to find a new photographer shadowing at the studio or a new food stylist. I work with my local community college and always try to have an open line with them should any students have questions about running a photography business or making pictures. It's literally an open door, and everything I give back always returns tenfold. Almost every week I'm fielding emails from students and new photographers about the world of shooting food, and I do my best to respond to each and every one of them. It's super-important to pay it forward. Always."

Go and photograph a slab of meat. Go and photograph a butcher. Go shoot Indian food. That's not to malign an entire region of the world, it's just hard to photograph. Anything that's stewed and brown is difficult. You've got to get out of your comfort zone and shoot as much as possible. And not just food. Get out and travel and shoot landscapes and photograph your friends.

"There's no excuse," he says. "What if I was really into shooting expensive cars that were over \$350,000? What if that's what I really wanted to shoot? There aren't many opportunities to do that. Or what if I only wanted to shoot beautiful models that were over six-feet tall with blond hair in couture gowns? That's not something you can do all the time, you know? That's a very specific place to be. But, with food, you can easily practice with lighting, with propping, with angles, that kind of thing."

DPP

See more of Matt Armendariz's photography at mattarmendariz.com.

digitalphotopro.com November 2015 | 41



FORGING HIS OWN PATH

After more than a decade working with a photographic legend, action-adventure photographer Brett Wilhelm goes solo to explore new opportunities, and the success is in the images

By Mark Edward Harris >> Photography By Brett Wilhelm

Mentorships and apprenticeships can be powerful tools in forwarding a career. As Colorado-based Brett Wilhelm proves with his camera, when you're under the tutelage of not only a master photographer and editor, but also an extremely successful businessman and educator, the results can be stunning. Wilhelm joined Rich Clarkson and Associates (rebranded as Clarkson Creative) fresh out of college and has emerged as one of today's top action-adventure sports photographers.

At the beginning of 2014, after 15 years with Clarkson, Wilhelm ventured out on his own, creating the company Wilhelm Visual Works, with a variety of national clientele, including ESPN's X Games, Red Bull, *Sports Illustrated* and the NCAA. The self-proclaimed "military brat" put down roots in Boulder after extensive travel and residence throughout Europe, Asia, Africa and the Americas, which helped mold the future photographer.

FORGING HIS OWN PATH



DPP: What's the secret to Rich Clarkson's success, both as a mentor and a businessperson?

Brett Wilhelm: I think the real key to Rich's success, not only in his current business, but all the time he spent in editor roles at newspapers and magazines over his long career, and the incredible cadre of talent he's advanced through that time, was a focus on hiring the person, not the photographer. He has never pursued the hottest photographic talents. He keys in on the individual, his reasoning being, he could always make you a better photographer, but if you weren't a good person, if you weren't reliable, if you weren't sharp,

that would be a lot harder to fix. He has always surrounded himself with solid people with the potential to be pushed to great things. I certainly wasn't hired out of college based on my photographic talents—I think I had pictures of tulips in my photojournalism portfolio—but he saw in me a potential to be really additive to his group, and I thrived there in the company of a very solid group of coworkers for more than a decade, learning to be a photographer along the way. That's the real magic.

DPP: What type of work did you do during your time with Clarkson?

Wilhelm: Everyone there wore a number of hats. I was a photographer. I ran

the Summit workshops for most of my 15 years there. I was also the technology director. I had no formal computer training, but I had an aptitude for it, so early on, I started working on the technology side of things, including digital asset management. Those needs expanded as we, and everyone else, converted to digital at the turn of the millennium.

DPP: What type of photo assignments did you do?

Wilhelm: One of our major clients was the NCAA, covering something like 20 different sports and around 90 national championships a year. Sometimes, I was a one-man band. For the larger events, such as the Division I



Thanks to his intimate knowledge of the sports he covers, Brett Wilhelm is able to anticipate the key moments in any event, and be in the right place at the right time, such as this shot of Greg Bretz at the 2014 X Games in Aspen.

DPP: How has Rich Clarkson and his company not only survived, but prospered through difficult times, including the transition to digital, which dramatically changed the world?

Wilhelm: One is the diversification of the business. First and foremost, we were a photo and, eventually, a bit of a video business. But we could also produce books, manage exhibitions, run workshops. That diversification was the real ace in the hole. When one client wouldn't have a successful sporting year and, therefore, those photos wouldn't be as popular, another portion of the business could pick up the slack. The education market contributed to the business. The one-off book proj-

ects that might only be every couple of years, those would bring in a big influx of revenue. We did books such as one celebrating the 50th anniversary of the Final Four, another on TrackTown USA, books for the Rockies and the Broncos, and non-sports books such as *Where Valor Rests: Arlington National Cemetery*, produced in coordination with the government. I still work with Rich and his team on some of the big projects, like the Men's Final Four. It really helps to hit the ground running with an experienced crew. A week like that isn't only sports photography. It's not just about covering the games. It's about attending to all the needs of a larger client, covering the sponsor par-



basketball championships, we'd send four or five people because of the diverse needs of the client. Beyond the NCAA, we were the team photographers for the Colorado Rockies, and for most of my time at Clarkson, the Denver Broncos. These experiences provided me with a broad exposure to lots of different sports. The business ran photography workshops and produced books, magazines and exhibitions. In addition to the excellent mentorship, one of the things I appreciate is getting a broad approach to the business as a whole, including how to provide photo management services to clients. It wasn't just about making great pictures.



FORGING HIS OWN PATH



ties, the community outreach programs, all of the pomp and circumstance.

DPP: Since venturing out on your own, you've expanded your body of work to include portraiture.

Wilhelm: Some are sports figures, some are musicians. I do a fair amount of music work these days. It was a bit accidental, but something I really enjoy. I did a series for Red Bull's Sound Select music series. After so many years with that photojournalistic fly-on-the-wall approach, where you're trying to be as minimally disruptive as possible, I've had to adjust to the portraiture world, where you're directing your subjects and trying to put them at ease. That was a mental switch I had to throw. People look for direction in a portrait session situation, and that's something that I had to learn how to do.

DPP: What sort of lighting setup are you working with on location, both for your portrait and action work?

Wilhelm: I was mainly working with Dynalites, but with the advances in low-light sensitivity, I'm shooting a lot more often with Nikon Speedlights using the PocketWizard TT1 and TT5 radio remotes. Often, the environments I'm working in—the side of a mountain for a ski shoot or in the woods somewhere—aren't as conducive for carrying in relatively heavy strobe equipment.

DPP: How did you achieve your creatively lit and captured shot of the mountain biker speeding by?

Wilhelm: It was during a race at

Keystone Resort. My friend and mentor Dave Black talks about the lighting triangle, not only getting the lights off-camera, but producing a triangle to make that light more interesting. The subject is one corner of the triangle. The lights were behind the rider camera-left and behind him camera-right. One is up in a tree attached to a Gorilla tripod, which can wrap around virtually anything, and the other was on the ground behind him. I played with various apertures and shutter speeds, and powered up and down the Speedlights remotely. I was shooting in rear sync and panning for many of the shots at around 1/30th of a second.

DPP: What camera bodies and lenses are you working with?

Wilhelm: My primary cameras are the Nikon D4S, and I also work with a Nikon D800, which I'm flipping to a D810. The D4S is much more sports-oriented, both in low-light sensitivity and frame rate. Ninety percent of the time, my camera backpack is packed the same way. I have one Nikon D4S with a Nikkor 17-35mm *f*/2.8 and another D4S with a Nikkor 70-200mm *f*/2.8. I've also been shooting a lot more lately with my 50mm *f*/1.4. It reminds me that my best zoom lens is my feet and carefully composing images. It's easy with a zoom lens to just zoom to the framing you want and start firing away. With a prime lens, you start moving around and composing things more carefully and more artfully. I've

also just invested in an 85mm *f*/1.4. The background goes so beautifully out of focus. The world looks pretty beautiful at *f*/1.4. For the action-sports world, I have a 16mm *f*/2.8 fisheye. It gets used a lot in skiing, snowboarding, skateboarding. That market cares a lot about perspective. If you want to get close, but you want to show the entire length of the rail or you want to be close to the athlete, but also want to see the lip of the half pipe where they're coming from and where they're landing, the fisheye is a unique lens that works great for that. It can very quickly get overdone as a look, but it's a really important tool in an action-sports photographer's kit. I rarely use a fisheye outside of the action-sports world.

DPP: How are you getting your images off the slopes when covering events such as the X Games?

Wilhelm: In the case of the X Games, we're transmitting images directly onto a wireless network they deploy; those images go directly to the PhotoShelter FTP and immediately produce password-protected online galleries. I'm out in the field, two miles from the editors,

Brett Wilhelm's Gear

Nikon D4S

Nikon D800 and D810

AF-S NIKKOR 70-200mm
f/2.8G ED VR II

AF-S NIKKOR 24-120mm
f/4G ED VR

AF-S NIKKOR 50mm *f*/1.4G

AF-S NIKKOR 200-400mm
f/4G ED VR II

AF-S Zoom-NIKKOR 17-35mm
f/2.8D IF-ED

AF Micro-NIKKOR 60mm *f*/2.8D

AF Fisheye-NIKKOR 16mm *f*/2.8D

AF-S NIKKOR 85mm *f*/1.4G

Nikon AF-S Teleconverter TC-17EII

Nikon SB-800, SB-900, SB-910
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FORGING HIS OWN PATH

Working with Rich Clarkson gave Wilhelm access to some of the most memorable moments in college sports.



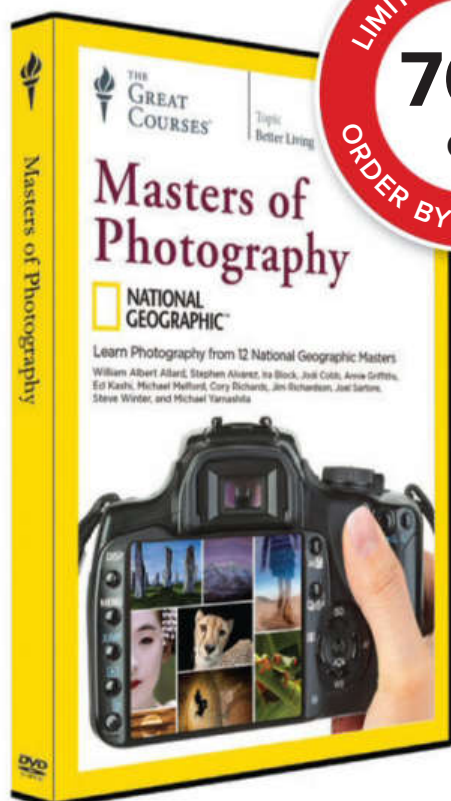
an athlete is coming down the half pipe and, using a WT-5 transmitter, I can hit “transmit” on the back of the camera and that image in near-real time is transmitted wirelessly to the back end of the PhotoShelter site, and editors sitting at the base of the venue and editors back in New York or wherever can access those images. These days, you don’t even need a wireless network deployed by the venue. I can turn my iPhone into a hotspot and transmit directly from that. This ability for the individual to distribute in a real-time, deadline-oriented world didn’t exist five years ago. I can set out into the field and with a cell signal be broadcasting my images around the world to a diverse clientele with the

same speed that a Getty Images or an Associated Press and all their back-end infrastructure can do. A lot of things that used to require a lot of web-development skills or accounting skills are now off-loaded to third parties for a nominal fee because so many other customers are sharing it. Things like PhotoShelter, FreshBooks, have come a long way in enabling the individual to compete with the larger agencies. I can operate with a much lower overhead and have a lot more flexibility as to the projects I pursue.

DPP: One of the most important technological developments in action sports—especially for POV shooting—is the GoPro. Are they in your arsenal?

Wilhelm: They are, but I don’t use them in the conventional sense. Rich instilled in us the importance of giving back, the importance of providing educational outlets. I use GoPros to produce educational behind-the-scenes content. On an assignment, I’ll turn the GoPro back on myself and talk about what I’m doing and how I’m doing it. The camera is on a little tripod, and I wear an Audio-Technica lavalier with a hardwire with a USB adapter connection so I can plug into the GoPro for better sound.

These videos are a way to attract more eyeballs to my work, but it’s also a really low-cost, low-resource way to share what I’m doing with not only photo enthusiasts, but hopefully the next generation of photographers coming through the ranks that find the content valuable. There are so many talented photographers out there today. Technology has allowed so many people to compete that it isn’t just about making great pictures. It’s about relationships to elevate yourself above all the chatter. I think now, more than ever, in the world of Instagram and websites, it’s about that relationship. The client hopefully trusts me to not only get the right shot, but to go on location and represent them in a professional and personal way. Having and maintaining those relationships is vital so you’re number one in their head when they have an assignment.



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FORGING HIS OWN PATH

DPP: You spent much of your youth moving, globetrotting. How have those experiences affected you?

Wilhelm: I was a military brat, and we moved every two to three years. For me, to lay down roots in Boulder for the past 20 years, was never something I would have thought possible when I moved out here for school. This lifestyle developed a natural curiosity because I was exposed to so many different cultures early on. There's a phenomenon called Third Culture Kids. The idea is, you grow up outside of your home culture, but you're not fully embraced in your host culture. I wasn't going to a Japanese school, I wasn't growing up in a Japanese home; same thing in Italy and Scotland. So you grow up in this in-between world. It develops a natural curiosity and cultural understanding about things, which I think lends itself well to photojournalism. It develops an ease in getting to know people quickly, at least in a very basic sense, and to approach situations from hopefully a welcoming standpoint.

DPP: You have to hit the ground running when on assignment, on location, and it's not just the technical skills that bring about a successful shoot; it's about interacting successfully with people.

Wilhelm: You have to gain that access, you have to gain the trust. You hopefully develop a rapport with them. Rich Clarkson has always been great at that, and he provided incredible mentorship. He also provided a wide range of incredible connections. So, when I went out on my own, I was only moving tangentially within the same business. But I'm more of an action-sports fan—skiing, snowboarding, mountain biking—than a stick-and-ball- or Olympics sports-type fan. I've gotten closer aligned to my passions through my work with ESPN's X Games. It's hiking up a mountainside to photograph skiers, working in the woods with mountain bikers. I was a former athlete, and I wanted to be out there exploring more. It came down to chasing my passions.

DPP

You can see more of Brett Wilhelm's photography at wilhelmvisualworks.com.

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When photographer Jordan Matter watched his three-year-old son Hudson playing with his toys, he didn't realize his life was about to change. Matter was watching him play with a toy bus, and that's when he had a creative epiphany. "[Hudson] had this level of enthusiasm for his fantasy life that I realized, as we got older, we lose," Matter explains. "We stop seeing the beauty in everyday life. We just go from point A to point B, but we don't see how we can enjoy that journey. I thought, suddenly, I could use dancers to show how beautiful everyday life can be."

That simple thought set Matter off on a quest that has transformed his life and his career. It has resulted in *The New York Times* best-selling book *Dancers Among Us* (as well as two follow-up book projects), exhibitions at museums and with professional ballet troupes, and invitations to collaborate on new projects from renowned dance troupes across the globe.

Matter's idea was to take dancers and put them in everyday situations, capturing them as they seemingly levitated in the air, or held complex and beautiful poses. "I had never shot dancers [performing] before," he says with a chuckle. "Fortunately, I had just done a portrait of a dancer from [the legendary dance troupe] Paul Taylor. I wrote

Dancing Among Us

By David Schloss >> Photography By Jordan Matter

Photographer Jordan Matter found inspiration in his young son's play, and launched a new career



Dancing Among Us

to him and told him the idea, and he said, 'I'll get you some of my dancers.'

"Over the course of a summer, I worked with 10 of the best dancers in the world, and that's when the idea really started to come out. I didn't understand it at first, but the more we would shoot, the more it became clear what I was trying to say."

At this point, Matter still didn't see this as anything more than a one-off project, simply an exploration of a theme. "My great ambition...was simply that Paul Taylor would make a coffee-table book out of it and sell it at their performances, and maybe have an exhibition hanging throughout their show. So I went to their company manager, who absolutely loved [the work] and wanted to use it—and this is the worst thing a photographer can ever say—but I said, 'The pictures are yours, no strings attached. I'm handing this body of work I spent the summer doing over to you. Do what you want with them.'"

Chuckling again at the thought, Matter says, "To my great fortune, Paul

Taylor said, 'No, thank you,' because the pictures didn't represent his dances, just his dancers." When they passed on the book, Matter didn't know what to do with it next since he had always envisioned Paul Taylor using it.

One of his images, the one that eventually would become the cover of the book *Dancers Among Us*, pictures a dancer in a red raincoat, clutching a red umbrella while completing a grande jeté on a rainy day in New York City. That photograph ended up on PDN's *Photo of the Day* blog, and then went viral. *The Daily News* called Matter and asked if they could run one of his photos. Instead, he said to them, "You could do that, or you could come with me while I crash the Apple Store, go into fountains, and get into trouble." This clearly interested *The Daily News*, who did a five-page spread on Matter and his photography.

"There's probably only one literary agent, I think, in the world that reads *The Daily News*, but [now he's] mine. He brought me in and decided to start approaching publishers about a book deal."

Matter and his agent would show up with dozens of 11x14 prints. Publishers all "fell in love" with them, Matter explains, and the agent thought there would be a bidding war. But, in the

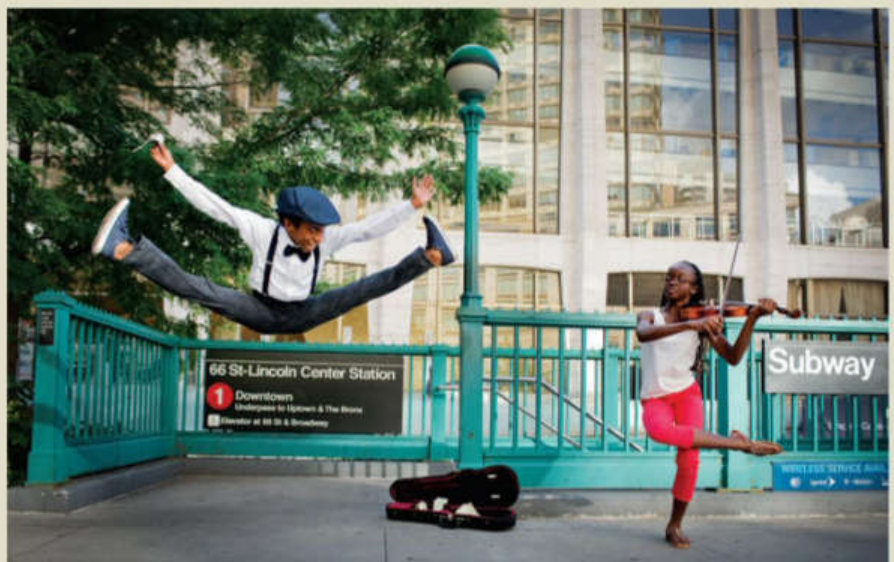




end, everyone passed because Matter says the publishers' sales departments all said, "It's a book about New York City dancers. No one is going to care."

Months went by, with Matter thinking his book was dead. Then, a junior designer at Workman Publishing found some of his photos online and hung them in her cubicle. Coworkers kept seeing the photos and liking them, and when the publisher saw the interest in the images, they decided to bring Matter in to talk about a book.

"They said the same thing [as the other publishers]; they were worried by a book about dancers only set in New York City. Then I said to them, 'It's not just New York City; this summer I'm going all over the country shooting this thing,' which was a total lie. But



Jordan Matter started his "Dancers Among Us" project working with professional contemporary dancers, but also has found inspiration in the energy and spirit of kids who dance competitively.

Dancing Among Us



Matter works quickly, without permits, so pulling off complex compositions is part photography and part guerrilla warfare.

I had to say it; I couldn't bear to hear 'no' again. I knew I had one more shot, right? So then I actually had to go get tickets, and go around the country."

After sending the publisher images from his impromptu road trip, they signed on and he spent the next year traveling and shooting. Workman Publishing decided they wanted to rush to get it out in the fall of 2012, Matter explains, "because their gamble—which was correct—was that it was going to be a miserable election. People would need something upbeat and happy, and it just found its moment."

That's perhaps an understatement because next the Internet took over and

things picked up speed. One night, the über-popular UK website *The Daily Mail* contacted Matter to ask if they could run some of his photos. Matter sent them images and some videos, and went off to bed. He had no idea that overnight his feature had become the most popular article on the website.

When he awoke, he had hundreds of emails from all over the world as a result of the coverage on *The Daily Mail*. One of the emails was from Diane Sawyer, who talked about the book on air that night. "It was around number five on Amazon that day," Matter says of the exposure, "and it kind of took off from there."

The publisher was unprepared for the explosive popularity of the book and started to run out of copies. When I ask Matter, "Isn't that the best problem to have?" he says, with a laugh, "Yeah, until it happens. It's still a problem." After catching up with demand, the book started to rise on *The New York Times* best-seller list.

"When the book became a best-seller, I thought, 'Well, this is over now.' I didn't see any reason to take anymore [dancer photos]. For several months, I didn't shoot a dancer. Then life keeps coming back to it. It's surprising how people keep discovering it...and they want to do a whole thing on it."



While Matter used to direct the dancers, now they collaborate on composition and emotion.

After *Dancers Among Us*, Matter started to work on *Dancers After Dark*, a project that will culminate in a book to be released in 2016, as well as a series of exhibitions. Meanwhile, his work continues to evolve. While early portraits were classically posed dancers involved in daily activities, in later shots the subjects are taking more risks.

Instead of a ballet dancer appearing to levitate over a dusty country road or gracefully leaping through a crowded Grand Central Terminal, in later works, they're poised precariously over ledges or hanging from fire escapes by muscle power alone. In his *Dancers After Dark* project, Matter is photographing his

subjects in the nude in locales around the world. In each case, Matter is clearly pushing against boundaries, both thematically and internally.

"I think I'm a bit of a thrill-seeker and an adrenaline junkie. I played baseball [through college] and then I was an actor. Both of these are adrenaline-fueled careers. What has happened is, the dancers will absolutely trust me with anything [now]...so, to find people that are as willing to take a risk as I am, I would push the limit on that."

The risk-taking has to be in the purpose of a greater story, though. "These pictures have to be broken down into at least one of three categories," notes

Matter. "There has to be a beauty to it, humor or a 'wow!' The 'wow' can come from incredible extensions, but it can also come from 'holy shit, he's hanging off of a fire escape and I can see that there's nothing down there [below the subject].'"

Sometimes, though, his risk-taking goes a bit too far, as was the case with the shoot of a female dancer on a stone wall over an incredible drop. "It's a shot with a woman smelling a flower with her leg straight up in the air," he explains, "except that she's on a stone wall, and you can see, down below, it's like a 100-foot drop onto concrete. She's absolutely dead if she falls, and she's holding this



pose on a rocky, uneven surface. While I was shooting that, this guy comes up to me, just a pedestrian [passing by], and said, 'Either you stop right now, or I'm going to call the police.'"

Matter says that was a sort of "rock-bottom" moment for his use of danger in his images and decided to use this as a way to refresh his creative process. "I started to simplify it again and find the beauty of it. I didn't get into doing the book because I wanted to shock people. I got into it because I want them to see there's beauty around them and I want them to celebrate that."

Instead of directing the dancers, now Matter has become more of a collaborator. For one shot, he had a dancer jump off a bench and cross her legs, to make it look like she was floating above the bench. "I had her do that 100 times until she said, 'Let me show you something different.' She showed me [a pose] I would never have imagined to ask her. She knows her instrument. And I learned a lot from that; now I start with asking their strengths, and [say], 'Help me tell this story in a way that's emotionally resonant to you.'"

Matter still draws inspiration from his children, with his five-year-old daughter Saylish providing the gen-

esis for *Tiny Dancers Among Us*. While shoveling snow one day, Saylish suddenly performed an arabesque turn. "I put it online and people went crazy," recalls Matter, who discovered the world of competitive junior dancers who compete for prizes. "These kids are phenomenally talented. You get into the competition world and they're more trick-oriented than ballet dancers. And they're cute."

Matter is completing *Dancers After*

Jordan Matter's Gear

Nikon D4S

AF-S NIKKOR 14-24mm f/2.8G ED

AF-S NIKKOR 24-70mm f/2.8G ED

AF-S Zoom-NIKKOR 28-70mm f/2.8D ED-IF

AF-S NIKKOR 70-200mm f/2.8G ED VR II

AF NIKKOR 28mm f/1.4D Aspherical

AF NIKKOR 50mm f/1.4D

AF-S NIKKOR 85mm f/1.4G

Dark and *Tiny Dancers Among Us* at the same time. "I was in Europe for two weeks, and it was exhausting. I would go to a different city every three days. During the day, I would shoot kids, and at night, I would shoot naked

dancers, then get up and shoot kids, then naked dancers."

Now, Matter travels the world capturing images for his books and appearing at gallery exhibits of his photography. He has been approached by foreign publishers that want their own cities to be included in his books. He has one best-selling book under his belt and two more with incredible support in the pipeline, all because of one day playing with his son.

When asked, though, what his life would be like if the social-media mentions, website coverage and TV appearances had never happened, if he would have still been capturing photos of dancers, Matter says wistfully, "If Hudson hadn't picked up that toy, I'd never have known any of this. But, once I saw [that moment], I would have been content to be in New York City and continuing to shoot the dancers. I think I would still be working on this thing until someone published it because I was just having so much fun doing it."

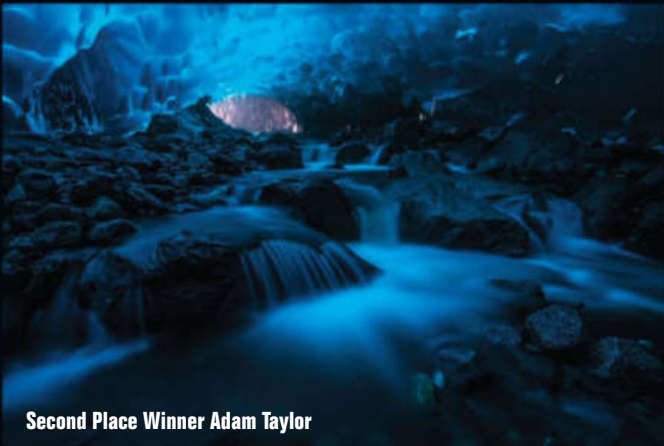
And, to Matter, celebrating the fun of the moment is the whole point. **DPP**

You can see more of Jordan Matter's photography at dancersamongus.com and at jordanmatter.com.

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Replacing The Desktop



Can photographers streamline
their workflow by ditching
their desktop computers?

By David Schloss

Forget frames per second. Forget phase-detection points. Throw buffer size out the window. The speed and power of a camera doesn't mean a thing if a photographer gets hamstrung when he or she is processing images. I know countless photographers who spend top dollar on a pro DSLR and then purchase an entry-level desktop or laptop to save money. The result is a workflow that's fast up front and then slow on the back—it's the camera equivalent of having a camera with a massive sensor and a teeny buffer.

You're going to capture beautiful photos and then miss a lot of shots while you wait for your camera to process images.

For the Mac-based photographer, there's an increasing array of choices, thanks to the new MacBook, Apple's ultraportable, but low-powered laptop. Many Mac photographers opt for a combination of a MacBook Air in the field and a more powerful iMac or Mac Pro back in the office. That has been my workflow choice for years, since the MacBook Air has provided all the pro-



The power of today's portable computers allows them to replace the desktop for most users. That means more flexibility—and more lattes.

cessing power I need for on-the-road performance and the MacBook blows the doors off of anything I've ever used.

But, at a certain point, it started to become clear that I might be able to kill two birds with a proverbial stone and use only a MacBook Pro for both studio and location work. The trade-off would be a bit of weight and size in my bag relative to the MacBook Air, but I'd get a much more powerful workflow in the field. Back at home, I could reduce some of the confusion and clutter that comes with running two systems. After all, if I'm importing images into a program like Lightroom in the field, I don't really want to have to move the catalog over when I return.

Spec Sheet

The new MacBook Pro with Retina Display comes in two sizes and a total of six stock configurations, with a variety of custom-build options. The entry-level 13-inch MacBook Pro with 2.7 GHz dual-core i5 is \$1,299. A fully tricked-out configuration of the 15-inch model has a 2.8 GHz Quad-core Intel i7, with Turbo Boost up to 4.0 GHz and a 1 TB flash drive, and comes with dual graphics cards. It packs both the Intel Iris Pro Graphics card and the AMD Radeon R9 M370X with 2 GB

of GDDR5 memory onboard and 16 GB of RAM.

With that configuration, the MacBook Pro comes to \$3,199, which puts it just above the price of the entry-level Quad-core dual GPU Mac Pro (\$2,999) and a few hundred dollars below the dual GPU 3.5 GHz 6-Core Intel Xeon E5 model.

On the other hand, the MacBook Pro with Retina Display comes in at a few hundred dollars more expensive than a comparably configured iMac with Retina 5K, with a much smaller display (obviously).

This is a bit of a (pardon this) apples to oranges comparison; the Mac Pro is a powerful machine and the dual graphics cards give it a level of performance for graphics-intensive tasks that the MacBook Pro can't reach. But it also contains a lot of power that applications like Lightroom don't take advantage of (yet). The Mac Pro's level of power is designed for high-end video editing and rendering, so some of the performance is lost on photo editing.

The MacBook Pro has much more connectivity than the MacBook Air, which makes it more powerful for media professionals. There are multiple USB ports, full HDMI and dual

(Cont'd on page 76)

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ROAD WARRIOR

Packing Light & Packing Right

A well-stocked computer bag can be the difference
between a successful shoot and a lost client

By DL Byron

For many people who make their living capturing images and telling stories, the phrase “travel photographer” has a double meaning. First, there’s the (often misguided) romance of visiting foreign lands and basking in culture. Then there’s the (more accurate) reality of slogging between cities laden with heavy bags of gear.

As the publisher of Bike Hugger, a website that chronicles cycling culture and lifestyle, I’ve certainly visited my share of picture-postcard destinations, but I’ve also uploaded photos from the coach cabin of a cramped domestic flight, sprinted to catch flights where the connecting gate is an impossible distance away and worked from small, ill-smelling hotel rooms with nonexistent WiFi.

For the modern travel photographer, there’s a need to travel light. Baggage fees, long waits between flights and ever-present deadlines necessitate having the right gear, but having it fit into a carry-on bag. Over the years, I’ve worked on minimizing my gear while maximizing my productivity. Much of that has to do with the collection of must-have tools for the road warrior.

Organizing

The key to successful travel photography is organization. I arrange everything into small, zippered travel bags, stacking them together in my bag like Matryoshka dolls. My favorites are zippered bags with a mesh or clear plastic back so I can see what’s inside. I pack a number of



Cocoon Innovations SLIM Backpack

DL Byron

these bags and group gear according to function—chargers and charging cables in one bag, card readers and storage cards in another, hard drives for backup in another, and so on.

To make it easy to repack and to make it easier to figure out who gear belongs to in a crowded press room, it's a good idea to use something to distinguish your gear. It's surprising how many journalists in a press room have identical tools. Packing a paint marker or a roll of colored electrical tape makes it easy to find gear and gather it up without playing "does this belong to anyone?"

The choice of bags is very personal, and there are hundreds and hundreds of camera and computer bags to choose from in a variety of styles. The most common are laptop bags, camera bags, messenger bags and backpacks—all of which have their merits. No matter what the bag, be sure it has zippered pouches (not buttons or Velcro®). The zippers will keep items in the bag when stowing them in the overhead compartment or under the seat in front of you.

My favorite bag from a nontraditional bag company is the Chrome Niko. It's water resistant, padded and comfortable thanks to the big strap. It doesn't look like a computer or camera bag (which is great for keeping items safe), and I've even clipped a monopod to it. I've managed to fill it with an iPad and headphones, mirrorless camera and lenses, organizers and a thin raincoat.

Recently, I've begun traveling with backpacks and organizers by Cocoon Innovations, which have an innovative storage system. Instead of pouches and pockets, these bags use thick elastic straps that are intertwined in order to hold gear down. Lift a strap, put a cable in and go. No zippers or Velcro®.

For a good look at bags and packs, our sister publication *Digital Photo*



Twelve South
PlugBug World

has a number of great options in the 2016 Buyer's Guide.

On The Literal Road

When driving to a shoot instead of flying (or for use in the rental car), there are a few must-have tools I always keep around. The first is a USB charger that fits into the cigarette adapter. I use one from Omaker that has three USB

ports and delivers a max of 6.6 amps, the most I've seen. A number of other excellent chargers are available from online and travel outlets, as well. For the fastest recharging time of mobile devices and cameras, look for a charger that has at least one 2-amp USB port.

Another automotive essential is a power inverter. These units (you can pick them up at Best Buy and any highway truck stop) connect via the DC "cigarette lighter" and, through the magic of science, create AC power available via standard AC connectors. Plug your laptop into an inverter and your car becomes an instant office.

Charging

Most laptops provide power over the USB ports, turning the computer

into a mobile charging station. Sometimes that's not enough juice, so most road warriors travel with a few USB chargers that plug into the wall outlets. That's great until you're in a hotel room with just one wall outlet. An ingenious product called the PlugBug turns the bulky Mac laptop "power brick" into a charging station and a universal travel adapter. The PlugBug connects to the removable plug on an Apple power adapter and replaces it with a new port that has a built-in powered USB port and interchangeable plugs that work with any power outlet worldwide.

To deal with limited AC outlets in hotels (and conference rooms and press centers and coffee shops), I carry a small power strip with me. This has come in handy more times than I can count, both to charge my own devices and to allow colleagues to charge theirs, as well. The Monster Outlets To Go power strip includes four outlets and a USB charging port, and takes up about the same amount of bag space as a king-sized candy bar.

Sometimes AC power isn't available, so in order to keep my devices running, I've taken to bringing several external batteries. These batteries plug into USB ports to charge when power is handy and then provide USB ports for mobile devices when you've left the grid behind. My favorite is the 3200 mAh Nokia DC-19, though that's because I was given some at a Nokia event. These cylindrical batter-



Cobra Power Inverter



Thanks to a well-packed bag full of the right gear, I was able to capture, ingest and transmit images on location without missing a beat or hunting for a cable. Photos by DL Byron

ies are available from a number of vendors. They're small enough to fit into a pocket and, with a cord secured in my belt loops, I'll recharge my phone in my back pocket. The 300 mAh capacity is enough for two charges or a full charge and enough to boost your iPad.

Another option is to use a battery case, but that increases the weight of the mobile device and can't be used to boost up a few devices. If the battery case is more to your liking, the most popular and well known is from mophie. They make a variety of cases in different capacities and they also make external batteries like the Nokia model. It's good to make sure whatever battery you pick has status lights to show its charge level.

Cards, Cables And Importing

While the MacBook Air I travel with has a built-in SD card slot, I always travel with a USB 3 card reader or two. Although I rarely have a need for them, they've saved my bacon when I've needed to grab an image from a second shooter that's using a camera with a CF card or when I want to ingest multiple cards at a time.

They're also handy to have around



as a favor for other photographers at events. Card readers seem to be the most often-forgotten item in the press room, and I've loaned mine out a few times, earning me a free beer or even dinner.

While I used to carry a collection of Micro USB and Apple Lightning connectors, now I rely on the double-duty Belkin Micro-USB Cable with Lightning Connector Adapter. This two-in-one cable has a Micro USB cable and a tethered Lightning adapter

that makes it connect to Apple devices. Three of these cables in my bag replace my previous collection of three Lightning and three Micro USB cables.

It's still a good idea to pack a Mini-USB cable, as some devices have the ports and not the newer Micro USB. The new USB-C standard has arrived, as well, so I keep some USB-C to USB cables in my bag, in addition to a USB-C to Ethernet cable (both are available from Apple).

Backup

Due to the fragility of computer laptops and the drives inside of them, I always bring at least one backup drive. The go-to drive for travel photographers is, by far, the LaCie Rugged. I've seen these drives in use by photographers around the globe. They're available in various capacities and with a range of connectors, but for the fastest speed with a Mac or a Windows machine, opt for one with USB 3.0 and Thunderbolt.

While not something you can fit in a backpack, online file storage is a crucial complement to the physical backups you take on the road. Even a secondary hard drive can fail—and I've seen people accidentally drop their whole camera bag into a stream during a shoot. Most road warriors use at least two different online systems—one for shut-

ting and syncing files between a remote laptop and the home office, and one for backup. That provides both easy access to essential files like Word documents and spreadsheets, and a way to ensure the safety of photos and other files.

Services like Dropbox, Box, iCloud and Google Docs are the most common means of keeping identical versions of files available across multiple devices. Prices range from free to expensive, depending on your storage needs and how many machines you need to sync.

For system-level backup and file protection, there are a few main competitors, and they offer similar services. Backblaze, CrashPlan and Carbonite are among the most popular, and they all offer background streaming and uploading of data to a data center somewhere in the cloud. Should disaster strike locally,

files are available remotely for backup. CrashPlan has the unique ability to let you send files to a trusted computer—one belonging to a friend or family member—for remote storage somewhere you can access in an emergency.

A Well-Packed Bag

The mantra of the successful travel professional is a lot like that of the Boy Scouts. It's important not only to "be prepared," but to be flexible, with powerful tools that can keep you going no matter the location, the connectivity, the electricity or the client. A well-packed bag can often be the difference between successfully delivering images to a client and having to apologize for a failed assignment. DPP

Visit *Bike Hugger* at bikehugger.com.

Favorite Gear

While there are lots of brands that produce gear that meets the needs of the travel photographer, here are some of my favorite tools and gadgets.

ORGANIZATION

Chrome Niko

chromeindustries.com/us/en/bags/camera-bags

Cocoon Innovations Grid-It Bags and System

cocooninnovations.com

Eagle Creek eTools Organizer

shop.eaglecreek.com/packing-organizers/l/1502

CHARGING

Automotive Power Inverter

There are almost a limitless number of models available. You'll want to choose a model with enough watts to power your gear. A minimum of 100 watts is good.

Monster Outlets to Go

monsterproducts.com/Outlets_To_Go_Power_Strip_4_Outlets

mophie Juice Pack for iPhone

mophie.com

They also sell an external battery like the Nokia DC-19.

Nokia DC-19

This is the unit I carry, but any of the similar external battery packs in this category work, as well.

Omaker Intelligent 6.6A / 33W Premium Aluminum

3 USB Car Charger With Smart Sharing IC
Available at online retailers and in many big-box electronics stores.

Twelve South PlugBug World

twelvesouth.com/product/plugbug-world

CONNECTIVITY

Apple USB-C to USB Adapter, USB-C to Ethernet Adapter
apple.com

Belkin Micro-USB Cable with Lightning Connector Adapter
belkin.com

Lexar Multi-Card 25-in-1
USB 3.0 Reader
lexar.com

STORAGE

LaCie Rugged Thunderbolt
lacie.com

ONLINE FILE SYNCHRONIZATION AND STORAGE

Box — box.com

Dropbox — dropbox.com

Google Docs — docs.google.com

iCloud — icloud.com

ONLINE BACKUP

Backblaze — backblaze.com

Carbonite — carbonite.com

CrashPlan — crashplan.com



Lexar Multi-Card
25-in-1 Reader



LaCie Rugged Thunderbolt



DAN RUBIN

THE NEW FACE OF

SOCIAL MEDIA

Or how to get 750,000 followers and establish yourself
as the poster child for Instagram without really trying

By David Schloss >> Photography By Dan Rubin

Before the rise of Instagram, Dan Rubin didn't consider himself a photographer. He didn't expect to have three-quarters of a million followers on Instagram. He hadn't envisioned a career of flying around the world to shoot social-media and advertising campaigns for major companies.

In fact, while he was drawn to photography in his teens, it had never really clicked.

"I was taking pictures, but not with any kind of artistic or creative or even compositional kind of goal in mind," he explains of his days before he became one of the early beta-testers for Instagram.

A designer by trade and a curious explorer of technology by personality, Rubin was the kind of guy who liked to play with new gadgets and gizmos.

In 2007, Rubin bought a Polaroid SX-70 because Polaroid had announced they were shutting down and Rubin wanted to own one "solely from fear of missing out," he says. "I saw the camera; I had never seen it before, but being a product designer and seeing this wonderful, folding silver-and-brown thing of beauty...the minute I saw it, I knew I had to have it. I figured I'd put a couple of packs of film through it.

"Then, I shot with it, and the images that came out, I fell in love immediately. It's one of those weird things where, for whatever reason, time, place and the combination of the film and the instantaneous feedback of it, as well, and the format, and everything else,

the camera made me a photographer. I've read that kind of phrase since, but I'd never come across that kind of concept. But, I still look at some of those earliest, like the first couple of packs' worth of images that I shot, and I still like those images. That's really rare."

Three years later, Rubin had become more serious about photography and had bought DSLR gear, and "threw myself at it," he says, "and started learning all I could about it. I went digital, then I went back to film concurrently. I got myself a late-'70s Canon 35mm, and was going back and forth between that and digital, trying to wrap my head around what I liked, what I didn't, what was good, what was bad."

At this point, Rubin was living in the United States, but traveling extensively in Europe. "I wanted to mix things up a little, do more design, and photography was now [a part of that]. I was telling people that I expected to spend 20 to 30 percent of my time doing photography."

That's when one of his design colleagues, Pat Haney, Tweeted the original icon for Instagram with a comment that he was "playing with something really cool." The original icon for Instagram looked like a Polaroid 1000. "I just happened to see his Tweet and knew he was testing some Polaroid-related photography app," says Rubin. "I replied to him and said, 'I don't know what this is, but I have got to be a part of it.'"

Haney emailed Instagram founders Kevin Systrom and Mike Krieger, and

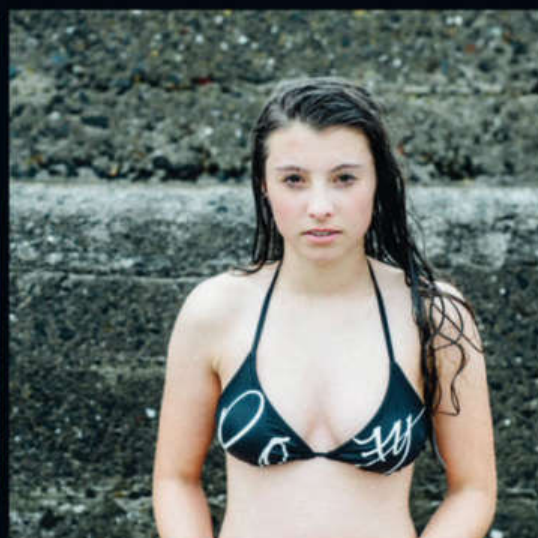
convinced them to invite him to the very exclusive beta.

Rubin sees the connection to Instagram (and the Twitter invitation that preceded it) as part of his greater overall engagement with technology, not a planned social-media campaign, as so many people see Instagram now. And that's one of the reasons why so many who set out to become "social-media experts" end up falling short. To Rubin, social-media work shouldn't be a separate goal or have a separate approach.

"Because I've been on all of these platforms and networks since...the beginning, I've seen them develop into what they now are," he notes. "But, they weren't those things when I started with them. So, I feel a very different relationship to the concepts than a lot of people who approach social network as a separate thing. I don't know how best to explain this because I don't actually talk much about social media."

Rubin has an interesting take on social media, one that's directly opposite of most of the "social-media experts" who teach people how to maximize impressions and game the system for followers. To Rubin, the key is to become passionate about the tool itself.

"The people who are natively successful...they're there because they're interested in the platform, as well. That's why they start. And, then, because of [knowing the network], they can push and pull and twist and bend it and know it for what it is, not what it



can do for them. I think that breeds a much broader understanding....”

Even as an early adopter of Instagram—and one of the app’s first featured photographers—it took a long time until Rubin could parlay his efforts into actual paying jobs. About a year and a half after Instagram launched, companies started to notice his follower count, and began to reach out to him to feature their brands in posts. “There was very little in the way of money being offered in exchange,” he says, partially as an explanation for why these early collaborations didn’t pan out. “But you could see people were dipping their toe in the water.”

In early 2012, Rubin had been flying between Europe and the U.S. He had been running his design agency between the two continents, competing seriously in an a cappella group and speaking at teaching workshops around the world. As if that wasn’t enough, he was also the Creative Director of MOO—an unusual, creative and popular business card printer based in the UK.

At this point, Rubin was mostly ignoring these early collaboration requests, mostly due to a lack of time and a lack of interest. Most of the offers were for things like a free pair of headphones if they were mentioned in a posting. But, in 2012, the game suddenly changed when Rubin got an offer from the UK mobile phone company O2.

Rubin recalls “the request was from their PR company, saying, ‘We’re doing

a travel promotion...and we’d love to send you somewhere for four nights to continental Europe, and you just post a picture a day, something like that.’

“I thought, that sounds like a pretty good deal. Again, not thinking of it in a commercial sense, but I was thinking, well, this is actually for a real company and they want to do something real that involves expense with it, and that’ll be fun.”

Things I Travel With

Sony a7S (with old **Nikon** and **Olympus** lenses)

Apple iPhone 6

Contax T2

Polaroid SX-70

Joby GorillaPods (one SLR, one iPhone)

The **Glif** (smartphone tripod mount)

Moment Wide and Tele iPhone lenses

Apple 13-inch MacBook Air

Samsung T1 500 GB SSD

ONA Leather Brixton bag

The job went off without a hitch and O2 was very happy with the images.

Then, for a while, nothing else materialized, but just after the Facebook acquisition, he says there was a sort of tipping point when advertisers realized that Facebook’s involvement would radically boost the user base.

Rubin decided to move to the United Kingdom and take a break from design work. He was getting a lot of requests to do Instagram work, but nothing was as solid as the original project for O2.

He thought that relocating to the UK not only would give him the ability to change course, but also to get closer to the agencies in Europe, who were doing more travel-related work.

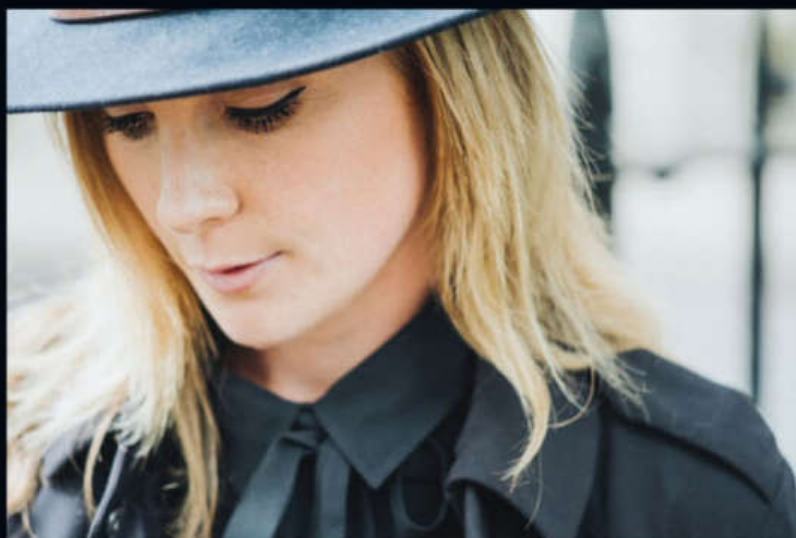
He reached out to the agency that did the original O2 campaign and told them he’d be relocating. They immediately asked if he would be interested in a similar travel campaign, visiting the Isle of Man—something that wouldn’t have been in their budget if they had needed to fly him from the United States.

While Rubin is very visible on social media, jobs that are for social-media channels make up no more than half of his workload. Because he’s been able to work with larger clients, he’s been able to use his design and photography background to land gigs as a workshop presenter, trade show speaker and educator.

Many people who have been lured by the stories of the money and travel in social-media photography burn out because it’s just not possible to only have one skill set. A photographer has to be a bit of a designer or storyteller in order to land a gig. When brand managers hire Rubin, he says they know they’re getting more than just a social-media outlet.

“They say, ‘Well, we can get a really good photographer and [creative director] who also happens to have this social reach,’” notes Rubin, “so, let’s have him do the shoot and throw in a posting or two to get us promotion.”

Rubin says that it’s a mistake for photographers to only look at social



media for their living, and that's partially because it's harder now to get into the market. "If you're not up to a few thousand followers at least, or in the 5K to 10K range and above, you're probably not going to get looked at seriously because your numbers aren't going to contribute to anything."

That doesn't mean that a photographer with no followers can't contribute to the social-media marketplace; it just means they need to approach the brands with a solid portfolio and an understanding of the product. There are still numerous jobs for brands where the photographer's follower count doesn't matter because the brand will be doing the posting. Of course, a brand is going to look more seriously at someone with thousands of followers than someone with a few hundred because it shows they know the market better.

When Instagram launched, Rubin said it was easier to "game the system," but Instagram has changed that.

Now, he says, "It's more traditional, the way it has always been. It's the same question of 'How do you get someone to come to your website?' Well, you have to get people to find out about it. You have to tell people, you have to be in the right place at the right time. You have to shake some hands and kiss some babies. That's what it's down to now."

There are also some nontraditional things a photographer can do to increase their reach. "Physically interacting with other people on Instagram, not just virtually interacting with them," advises Rubin. "That's a great way to increase the circle of connectivity because that's what the app does really well. If you actually participate in community events and go to the meetups—which isn't a traditional photographer thing to do, photographers have always been solo—you'll find it's not full of professionals, but just people that love photography."

"When you're hanging out at these events...they take a picture of you and tag you in it. Suddenly, their audience has access to you, not because you've taken a photo, but because of where you were and who you were around."

He also says that the ways that

photographers interact with brands is changing, and it's opening up new employment possibilities. Now, Rubin says many photographers are working with brands to help them define their presence. "I've known people that have done this really well; they're not trying to be photographers as much as Instagram consultants, helping clients build their brand's Instagram feed."

When asked if he thinks that Instagram is now no different than any other self-promotion outlet, Rubin is hesitant to give a yes or no answer.

"Mostly," he says. "I mean, there's always some luck involved in being around new technology," and that, he points out, gives some people tremendous opportunities. But, then, he adds, "There are people I see who are still starting from scratch, from nothing, and...specifically because of the way that discovery works now, good work is actually getting surfaced."

Rubin says that means there's actually more of a chance that a good photographer will get noticed on Instagram now than years ago, because when the network started it was more about followers than it was about skill.

"I think the environment is really good right now," he notes. "If you're putting it out there and you're being very engaged—virtually and not the physical side—that's what will get things to happen now. It's just something people have to be patient with. If your goal is to get people to hire you to post things on your own feed, you'll just have to take the time to grow that organically."

Even if social-media photography isn't your goal, Rubin thinks Instagram is a brilliant place for photographers to be. "You're much more likely to have your work discovered because you put it on Instagram than to have someone stumble onto your portfolio. That's why the work that goes out needs to be its best, even if you think no one is looking."

"Anyone could be looking," says Rubin, "any agency, any brand, any agent. Even if you have only 100 followers, if they like it, that could be your opportunity." DPP

You can follow Dan Rubin on Instagram @danrubin and @danrubinphotography



Picking up a Polaroid and using it regularly changed Dan Rubin's career—and his life. By embracing photography, Rubin, a designer by trade, changed his emphasis right when social-media photography took off.



THE TRANSFORMING NATURE OF FAIR USE

Accuse someone of engaging in copyright infringement and one of the more common responses you're likely to receive from the accused infringer is that it's a "fair use." If anecdotal evidence is any indication, most photographers who have attempted to enforce their rights have experienced this sort of response at one time or another. This reality is consistent with observations made by Mickey Osterreicher, General Counsel for the National Press Photographers Association. "Unfortunately, we're seeing...more and more people asserting fair use.... [E]verybody just thinks that everything is fair use."

It can be difficult at times to overcome the wide variety of misconceptions and misunderstandings that exist regarding fair use. I can't count the number of times I've heard someone utter the sheer nonsense that copying for educational purposes is always fair use. If such a misapprehension were true, there would be no incentive for any educational publisher to ever create and publish a textbook, and very

The concept of fair use is a double-edged sword, allowing photographers to create new works, but also threatening copyright at the same time

By Samuel Lewis

little in the way of sales to support those efforts.

More recently, the concept of fair use as it relates to photographs has broadened. In order to understand the concept of fair use today, it's essential to understand how the concept developed.

The Long View Of Fair Use

Fair use has existed in American jurisprudence since the first Copyright Act was enacted in 1790. While the Act itself didn't make reference to fair use, the concept of fair use was already fairly ingrained in legal thinking in England.

The "fair use" doctrine—as it became known much later—was entirely a

judge-made doctrine, at least until the enactment of the Copyright Act of 1976 (the current Copyright Act). With the enactment of the current Copyright Act came a statute that expressly referred to the limitation on the exclusive rights associated with copyright as "fair use," and provided factors for a court to consider when assessing whether a particular use was a fair use or not.

The doctrine is presently codified at Section 107 of the Copyright Act, and it expressly recognizes fair use "for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research...." The statute also provides four factors to be considered: "(1) the purpose of character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market

for or value of the copyrighted work.”

Unfortunately, the statute doesn’t provide any clear distinction between what constitutes fair use and what constitutes infringement. According to the U.S. Supreme Court, the task of determining whether a use is a fair use “is not to be simplified with bright-line rules, for the [fair use] statute, like the doctrine it recognizes, calls for case-by-case analysis.”

Even as codified, for most practical purposes, fair use remains a defense to be asserted in an action for copyright infringement. “It’s not like this little card you get to waive going fair use beforehand and go on your merry way,” explains Osterreicher. “So you can claim all the fair use you want, but the only place that it really comes into play is [when] you get sued, you assert fair use... and the court gets to decide.... That’s the way it’s supposed to work. That’s not the way it’s working in the real world where everybody just thinks that everything is fair use....”

Developing The Concept Of Transformation

One of the key issues in the fair use analysis as it relates to many photography-related cases today is that of transformation. Transformation may tip the balance when courts consider the first factor in the fair use analysis—the purpose and character of the use—and whether the allegedly infringing work has sufficiently transformed the original work so as to result in an entirely new work.

For better or worse, the concept of transformation was squarely recognized by the U.S. Supreme Court in the mid-1990s in a case that didn’t involve photographs, but rather, rap music.

In 1989, Luther Campbell—then of the rap group 2 Live Crew—wrote a song entitled “Pretty Woman,” a satire on the famous Roy Orbison song “Oh, Pretty Woman.” After writing his version of the song, Campbell attempted to license the original Orbison version from the record label that owned those

rights. The label refused to license Orbison’s song, but 2 Live Crew proceeded to release an album with Campbell’s version anyway.

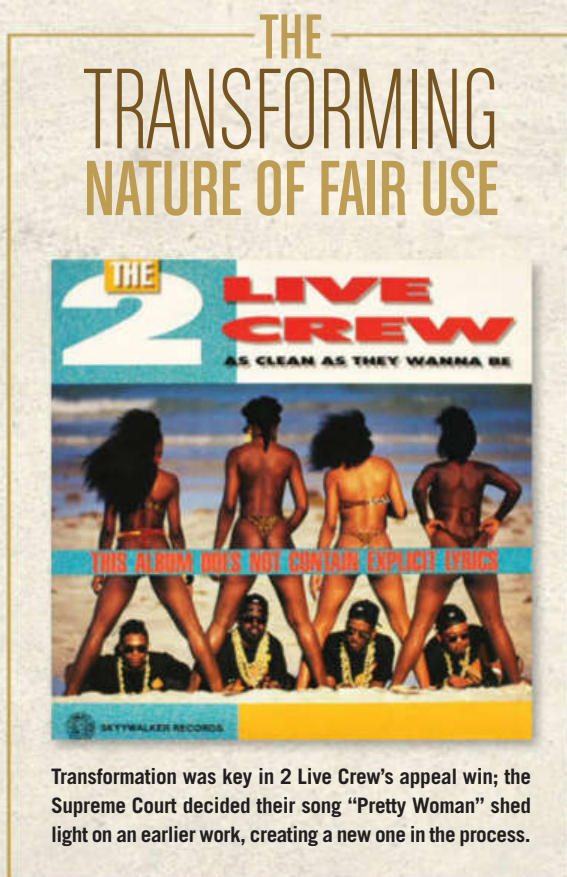
Roughly a year later, 2 Live Crew’s album had sold nearly a quarter of a million copies. Orbison’s record label sued for copyright infringement, and 2 Live Crew defended on fair use grounds. The U.S. District Court found that the commercial purpose behind 2 Live Crew’s version didn’t preclude a fair use defense. The court also noted that, as a parody, 2 Live

use doctrine. “From the infancy of copyright protection,” noted the Court in its opinion, “some opportunity for fair use of copyrighted materials has been thought necessary to fulfill copyright’s very purpose, ‘[t]o promote the Progress of Science and useful Arts....’”

Turning to the issue of whether fair use applied, the Supreme Court considered the purpose and character of the use, and specifically the issue of transformation. In essence, the Supreme Court asked whether the 2 Live Crew version—which was viewed as a parody—sufficiently transformed the original Roy Orbison song to create an entirely new work.

The Court had no difficulty reaching a decision: “Suffice it to say now that parody has an obvious claim to transformative value.... Like less ostensibly humorous forms of criticism, it can provide social benefit, by shedding light on an earlier work, and, in the process, creating a new one.”

The key to determining whether a work constitutes a sufficient transformation, according to the Supreme Court, is to determine “whether the new work merely ‘supersede[s] the objects’ of the original creation, or instead adds something new, with a further purpose or different character, altering the first with new expression, meaning or message; it asks, in other words, whether and to what extent the new work is ‘transformative.’”



Crew’s version “quickly degenerates into a play on words, substituting predictable lyrics with shocking ones” to show “how bland and banal the Orbison song” is. Weighing all of the factors, the court held that 2 Live Crew’s version constituted fair use.

Orbison’s record label appealed, and the U.S. Sixth Circuit Court of Appeals reversed the finding of fair use. The case was again appealed, this time, to the U.S. Supreme Court.

The Supreme Court considered the origins and development of the fair

Transforming Transformation

More recently, the U.S. Second Circuit Court of Appeals broadened the concept of fair use as it related to photographs transformed into artworks.

Photographer Patrick Cariou created portraits of Rastafarians in Jamaica, and, in 2000, published a series of those portraits in the book *Yes Rasta*. The book, which is currently out of print, enjoyed limited success: Only 7,000 copies were published, and the majority of those sold below the suggested retail price.

Appropriation artist Richard Prince

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discovered a copy of Cariou's book in 2005. Two years later, Prince took 35 photographs from the book, altered and pinned them to plywood, and then displayed the result as a work entitled "Canal Zone." Prince ultimately purchased three additional copies of *Yes Rasta*, and proceeded to make 30 additional pieces of art, 29 of which incorporated partial or whole images from *Yes Rasta*. The portions of the photographs that Prince used varied considerably from work to work. In some cases, there was extensive alteration; in others, only minimal alteration. In one instance, Prince merely "paste[d] a picture of a guitar over the subject's body." Twenty-two of Prince's works, based on otherwise incorporating Cariou's images, were featured at a show at Gagosian Gallery.

In 2008, Cariou sued Prince, the Gallery and others for copyright infringement. As with so many copyright infringement actions, Prince and the other accused infringers asserted fair use as a defense. The U.S. District Court in New York concluded that "Prince did not intend to comment on Cariou, on Cariou's [photographs], or on aspects of popular culture closely associated with Cariou or the [photographs] when he appropriated the [photographs]." In other words, there was no transformation of Cariou's images, at least consistent with that court's view of transformation. Ultimately, the District Court rejected the fair use defense and granted judgment in favor of Cariou. Prince and the other defendants appealed.

The U.S. Second Circuit Court of Appeals took a different view, and noted that "[f]or a use to be fair, it must be productive and must employ the... matter in a different manner or for different purpose from the original." In line with this view, the Appeals Court determined that the District Court had applied too narrow a view of fair use when ruling in favor of Cariou.

Turning to the heart of the issue, the Appeals Court considered whether

Prince's works were transformative. "Here, our observation of Prince's artworks themselves convinces us of the transformative nature of all but five.... These twenty-five of Prince's artworks manifest an entirely different aesthetic from Cariou's photographs...."

Largely as a result of this comparison, the Appeals Court ruled that 25 of the 30 works at issue were sufficiently transformed to stand up as new works and therefore constituted fair use.

However, perhaps cognizant that its decision may be viewed as an expansion of rights, the Appeals Court also offered a limitation: "Our conclusion should not be taken to suggest, how-

THE
TRANSFORMING
NATURE OF FAIR USE
"The issue of
transformation keeps us
firmly in a world where
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the use constitutes
infringement or a fair use."

ever, that any cosmetic changes to the photographs would necessarily constitute fair use. A secondary work may modify the original without being transformative."

Ultimately, the Appeals Court was unable to ascertain whether the remaining five of Prince's artworks were sufficiently transformed to qualify as a fair use. Unable to say with certainty that those artworks present a "new expression, meaning, or message," that issue was sent back to the District Court for further consideration.

Cariou appealed to the U.S. Supreme Court. Unfortunately, the Court declined to hear the appeal.

Lost In Transformation?

Cases like Cariou's suggest that the concept of transformation has firmly established itself as an integral aspect of the fair use analysis. Indeed, any consideration of the fair use factors today is arguably incomplete without questioning whether a particular use of an existing work constitutes a sufficient transformation such that the resulting work has its own aesthetic, character or message (as opposed to a non-transformative use, which typically makes no alteration to the expressive content or message of the original work).

Just as beauty is in the eye of the beholder, the subjective nature of the concept of transformation is likely to produce more questions than answers. The issue of transformation keeps us firmly in a world where there can be no clear test for fair use, and where the specific facts of each case will need to be evaluated in order to determine whether the use constitutes infringement or a fair use.

This new reality is also something of a double-edged sword for photographers. On one hand, a broader view of fair use may allow photographers greater freedom to incorporate existing works into new ones provided the resulting work constitutes a sufficient transformation. On the other hand, the broader view will likely complicate photographers' efforts to enforce copyrights in images used or incorporated into new works.

As long as the concept of fair use exists and continues to evolve, it will continue to be both a burden and a blessing for anyone who creates content, including photographers. DPP

Samuel Lewis is a Board Certified Intellectual Property law specialist and partner at Feldman Gale, P.A., in Miami, Florida, and a professional photographer who has covered sporting events for more than 24 years. He can be reached at slewis@feldmangale.com or slewis@imagereflect.com.

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REPLACING THE DESKTOP

(Cont'd from page 61)

Thunderbolt 2 ports. That makes it possible to connect the MacBook Pro to any number of high-end devices from RAID systems to studio monitors.

It's also possible to connect the MacBook Pro to a 5K display, a first for Mac laptops. That means you can go from image capture to full-scale video editing with the MacBook Pro.

Interestingly, the high-end graphics card option, the AMD Radeon R9 M370X, is based on a relatively older chipset, code-named Cape Verde, which was released in 2012. AMD essentially rebranded an older card when they increased the amount of RAM on the card. This allows the card to run a bit faster than some competing cards, even at a lower clock speed. It's an odd choice to have this as the top-end graphics cards in the pro-level laptop—we suspect that the next refresh of the MacBook Pro will have a more modern card inside.

The Desktop Is Dead

To test whether the MacBook Pro could replace my Mac Pro, I stopped using my Mac Pro for a few weeks.

My previous workflow would be to create a new Catalog in Lightroom for a client shoot and to import images into that Catalog in the field. While working remotely, I'd start with keywords and captions, editing and adjusting and delivering anything the client needed for a deadline.

While the MacBook Air is powerful, often the process of working with a whole shoot of images would cause the fans to kick on and the machine to slow down, albeit only slightly.

Back at the office, I'd export the Catalog and import it into my Mac Pro, where I'd finish any editing work, a step that would slow me down a bit.

With the MacBook Pro as my main machine, I simply connect to my dual displays at my office and then move the folder of images from my internal flash drive on the MacBook Pro to my studio RAID, where they're instantly backed up to Backblaze and to my studio backups.

I had been worried that the

processor and graphics card inside the MacBook Pro wouldn't keep up with the image editing needs of Lightroom and Photoshop, but that's not the case. I'm finding very little difference in performance in real-world tests. Lightroom takes a fraction of a second longer on the MacBook Pro to switch from Library to Develop, but sliders and adjustments seem to perform just as fast.

Recently, Adobe announced they're optimizing their applications to take advantage of dual GPU systems, which means that over time the Mac Pro will see performance boosts that the MacBook Pro can't touch (until such time as the MacBook Pro gets a dual graphics card), but currently the performance of the applications is on par with the performance of the laptop.

By focusing all of my energy on a single computer, I find that I'm having a much smoother workflow, as well. I can connect everything in my office via a Thunderbolt dock, so all I have to do is plug in the power cord and one Thunderbolt cord, and I can run my two monitors and all of my drives.

While the video card on the MacBook Pro is fast, we can't help but wish for a faster card, especially when spending more than \$3,000 on a computer. Certainly, the MacBook Pro didn't feel slow as a result of the AMD card, but it didn't feel blazingly fast either. We'd like to see an option for a more modern card in the top-end configuration. As a result, it might be a good idea for photographers on the fence about a new laptop to wait another cycle before jumping in.

Still, the MacBook Pro might be the perfect laptop for photographers on a budget, or photographers looking for a more streamlined solution for their working day. It's powerful enough for your most complex tasks and yet light enough to take just about anywhere.

If you're doing high-end retouching work, video editing and multimedia, you'll need to get a desktop. If you're a working location photographer, the MacBook Pro is the go-to machine for your studio and your backpack. **DPP**

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MISINFORMATION

(Cont'd from page 80)

EOS 1D was a digital update of the EOS IV, the 1D II an update of the 1D and so on. Using that logic, Canon hadn't created a completely new system until the 1D X. And, of course, that's nonsense.

In retrospect, it's easy to forget that the 1D lineup only updated every few years: the 1D in 2001, the 1D Mark II in 2004, the 1D Mark III in 2007, the 1D Mark IV in 2009 and the 1D X in 2012. That's about three years between each "new" model, so nothing has changed.

It's easy to compress the space between releases in hindsight and think nothing new is happening, as updates happened so fast in the past. They didn't. It's also easy to discount the benefit of technological leaps like a sensor at 250 megapixels and a consumer-focused tool at 120 megapixels with 8K video. Technology for the masses comes from technology for the record books. We wouldn't have laptops or GPS navigation or smoke detectors or ear thermometers or memory foam if it wasn't for NASA and engineers who thought outside the box to create new versions of an existing technology.

The important point is that photographic development—especially in the digital era—is neither as fast nor as slow as we remember it to be. And it happens in fits and starts. A lull in the megapixel wars doesn't mean they're over, and a rush of new cameras to market doesn't mean we're going to see wholesale new models every 12 months.

The camera you're using today also won't be any better or worse next year when a new camera comes out. So while technology helps make better images, the technology you're using today is already incredibly good.

Back when a 4-megapixel camera was the "professional" resolution, the idea of cameras with 50 megapixels or cameras that could record 4K would have been ludicrous, yet fascinating.

Today's gear is so good, in fact, that it's the kind of thing that would have seemed impractical and imaginary less than two decades ago.

DPP

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Camera development is as robust as ever, maybe even more than in the past

By David Schloss

As we were putting this issue to bed, a familiar argument in the photography market was starting to resurface, thanks to the announcements from Canon that they had managed to create a 250-megapixel sensor on a chip just slightly larger than APS-C, and that they have plans to release a 120-megapixel DSLR and a 8K cinema camera in the future.

Within moments of the Canon announcements, online photography forums lit up, both commending and criticizing Canon with equal force. As is often the case, the detractors were most verbal and their complaints, while varied, centered around a few key points.

First, they claimed, Canon hasn't been fast enough with releasing refreshes to their professional DSLRs. Users expressed frustration that Canon has produced a series of updated versions to existing cameras (5D Mark III, 7D Mark II), but no groundbreaking new pro DSLRs; Canon, they argued, hasn't been fast enough to innovate. They point to the fact that a 250-megapixel sensor would require lenses much more precise than those today as evidence that Canon is showboating instead of designing things that pros could use.

"A 120-megapixel body that records in 8K?!" they cried. "Who could use that?"

Then the supporters of Canon point to the company's updated "Mark" cameras as proof that Canon is putting new features into updates instead of just waiting until they have enough new tech for a full body update. It's a better solution, they argue, because new systems cost a lot to manufacture, so if the company waited until the costs of producing new components, milling, molds and production lines were justified, we'd wait a very, very long time



This massive 250-megapixel sensor is the future of photography. Or is it?

Canon announced plans to release an EOS with a 120-megapixel sensor and 8K video recording, upsetting some photographers and thrilling others.

for cameras. The updates are proof of the company's commitment, they say.

About the super-high-res sensors Canon announced, they point out that today's "groundbreaking" technology becomes the working standard in just a few short years. At some future point, we'll be grabbing stills from 8K video and purchasing lenses that can resolve that resolution as if it were common.

Both parties are right, both parties are wrong. But they bring up an interesting point about technology and its impact on the customer—and this relates to the photographer in the digital era.

Back when cameras were capturing images on film, the average time between new top-end SLRs was around 10 years. Even film—the equivalent of the ever-evolving sensors in our digital cameras—updated at a very slow pace, and then the previous film stocks

would stick around. Kodachrome begot Ektachrome, but that didn't stop Kodak from continuing to produce their original slide film. Even when film stocks would be replaced with updates (Ilford's HP-5 was replaced by HP-5 Plus), there wasn't a huge difference; it was more a tweak of a formula.

After the photographic transition to digital began, things picked up. Moore's Law (which describes the rapid rate of technological advances) came to photography and companies started to update cameras at a much faster pace. Pro bodies went from a decade-per-iteration cycle to two or three years.

Even with that rapid pace, technology still updates in fits and starts. Those complaining that Canon hasn't released a new pro model recently forget the heritage of the 1D camera. Technically, the

(Cont'd on page 77)

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